DOCUMENT RESUME

ED 348 531	CE 061 752
AUTHOR	Heebner, Amy; And Others
TITLE	Career Magnets: Interviews with Students and Staff.
INSTITUTION	National Center for Research in Vocational Education, Berkeley, CA.
SPONS AGENCY	Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE	Aug 92
CONTRACT	V051A80004-91A
NOTE	104p.; For a related document, see ED 344 064.
AVAILABLE FROM	National Center for Research in Vocational Education Materials Distribution Service, Horrabin Hall 46, Western Illinois University, Macomb, IL 61455 (order no. MDS-386: $6).
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	*Academic Education; Administrator Attitudes; *Career Education; College Preparation; Demonstration Programs; *Educational Benefits; Educational Innovation; Educational Research; High Schools; Interviews; Magnet Schools; *Program Effectiveness; Student Attitudes; Teacher Attitudes; Vocational Education; *Work Ethic
IDENTIFIERS	*Career Magnet Schools; New York City Board of Education

ABSTRACT

Seventy students and 62 teachers and administrators in New York City career magnet and comprehensive schools were interviewed to learn why the career magnets were successful. A statistical analysis of student outcome data for the interview sites verified they were at least as effective as the typical magnet school. Interviews with students revealed benefits, complaints, and career magnet versus comprehensive high schools. Interviews also explored ways in which adolescents expressed attitudes toward a work ethic and the way attitudes toward work were affected by attitudes toward marriage and family. Results of the study indicated the following: (1) students developed a more optimistic future outlook as a result of receiving career training and developed a strategy of "parallel career planning"; (2) the schools taught a work ethic to help students succeed in adult life; (3) students both obtained a career-related education and retained ambitions for college; and (4) students were often placed in new peer groups that were sources of positive values. Faculty members were enthusiastic and worked hard, but schools could not provide all the help low income and minority students needed, especially with job knowledge. Both comprehensive schools and magnet schools lack enough career guidance, and career magnets do not do as good a job of educating students with poor academic records as they do average students. (Contains 27 references.) (YLB)

ED348531

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University of California, Berkeley

CAREER MAGNETS: INTERVIEWS WITH STUDENTS AND STAFF

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Amy Heebner
Robert L. Crain
David R. Kiefer
Yiu-Pong Si

with assistance from

Will J. Jordan and Barbara Tokarska

Teachers College
Columbia University

National Center for Research in Vocational Education
University of California at Berkeley
1995 University Avenue, Suite 375
Berkeley, CA 94704

Supported by
The Office of Vocational and Adult Education,
U.S. Department of Education

August, 1992

MDS-386

CE061752

FUNDING INFORMATION

Project Title:	National Center for Research in Vocational Education
Grant Number:	V051A80004-91A
Act under which Funds Administered:	Carl D. Perkins Vocational Education Act P. L. 98-524
Source of Grant:	Office of Vocational and Adult Education U.S. Department of Education Washington, DC 20202
Grantee:	The Regents of the University of California National Center for Research in Vocational Education 1995 University Avenue, Suite 375 Berkeley, CA 94704
Director:	Charles S. Benson
Percent of Total Grant Financed by Federal Money:	100%
Dollar Amount of Federal Funds for Grant:	$5,918,000
Disclaimer:	This publication was prepared pursuant to a grant with the Office of Vocational and Adult Education, U.S. Department of Education. Grantees undertaking such projects under government sponsorship are encouraged to express freely their judgement in professional and technical matters. Points of view of opinions do not, therefore, necessarily represent official U.S. Department of Education position or policy.
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PREFACE

This is a report on the effects of New York City's career magnet high school programs (locally called Educational Option programs). It reports on a large ethnographic study of students and staff in career magnet schools. An earlier study—*The Effectiveness of New York City's Career Magnet Schools: An Evaluation of Ninth Grade Performance Using an Experimental Design* (1992) by Robert L. Crain, Amy L. Heebner, Yiu-Pong Si, Will J. Jordan, and David R. Kiefer—analyzed statistically the lottery admission process and measured the effect of career magnet schools on ninth grade performance. The third report in this series—tentatively titled *Characteristics of Effective New York City Career Magnet Schools as Revealed by an Experimental Design*, which statistically analyzes the effects of career magnet schools on eleventh grade outcomes and describes the characteristics of magnet schools which had positive ninth, tenth, and eleventh grade outcomes—will be available at the end of 1992. There may be a fourth report in December 1993, tentatively titled *New York City's Career Magnets: A Four-Year Experimental Evaluation*, which will complete the statistical study of this group of students by examining their ninth through twelfth grade outcomes and other data based on interviews with teachers and graduates of the schools.

EXECUTIVE SUMMARY

It is widely believed that there is no alternative to forcing high school students to make hard choices between college preparatory and vocational study. However, there is a group of New York City high school programs—which are locally called Educational Option programs, but which we will simply call career magnets—many of which are trying to break down the division between preparing for college and preparing for entry-level positions in various careers. This report is the second in a series evaluating these career magnet high school programs.

These programs are important for four reasons. First, they represent an important new approach to secondary education which combines career preparation with traditional college preparatory programs and allows students interested in career opportunities to avoid having to make the hard choice between preparing for college and preparing for an entry-level job after high school graduation. Second, the New York City project is an important research site because it is not a small educational experiment: Of all the magnet programs in New York, the career magnets program is the most extensive (with 133 individual programs) and educates nearly a third of all the public school students in New York City. Third, the New York City project has made a serious commitment to equal opportunity, requiring schools to accept students of all reading levels and to admit one half of the students to the program through random assignment. Finally, because of the use of random assignment, the project provides an opportunity for an evaluation based on a rigorous randomized experimental design—the only methodology for determining with certainty whether students who attend these schools benefit from doing so. The New York City school system serves a large minority and immigrant population, so this research has implications for many other central city school systems.

The career magnets program is only one of several types of magnet high school programs in New York, where most high school students attend magnet programs of one kind or another. Only about three eighths of New York City's middle-school graduates of 1988 attended comprehensive programs, although these programs are the most common form of education in most U.S. cities. About a third of these graduates attended career magnet schools, a tenth attended vocational schools, and the remainder attended a variety of highly selective schools. The application process in New York City is designed to maximize the number of applicants to magnet schools. Every student is required to fill

out an application, if only to check a box indicating that they want to attend their local comprehensive high school. Eighty-two percent of middle-school graduates stated a preference for some sort of magnet school. White-collar careers, especially those in business and computers, are much more popular with New York middle-school students than are blue-collar training programs.

The first report in the series (Crain, Heebner, Si, Jordan, & Kiefer, 1992) found that students whose academic records were too weak for those students to be admitted to career magnets and who were randomly admitted by lottery performed better in the ninth grade than did students who were of equal educational backgrounds and who lost the lottery and attended their neighborhood comprehensive school: The magnet school students' reading scores improved, and they earned more course credits. However, students who entered the magnets with very low reading scores did not benefit as often. Although magnet students with low reading scores were less likely to drop out of high school than their comprehensive school counterparts, their absence rate was high and their reading did not show any more improvement than that of students in comprehensive schools. Fortunately, only one sixth of all randomly admitted students are at this low reading level.

Since the majority of randomly admitted students did benefit, we interviewed seventy students and sixty-two teachers and administrators in career magnet and comprehensive schools to learn what happened in these schools that would explain the success of the career magnets. The results of the interviews tended to reinforce the findings of the statistical study (i.e., Crain et al., 1992). We found that the students in the career magnet programs developed a more optimistic outlook on their future as a result of receiving career training. They learned practical skills such as keyboarding, which instilled them with greater self-confidence. They often developed a strategy of "parallel career planning," enthusiastically developing useful skills for entry-level work while taking college preparatory courses, arguing that their work skills would make it easier for them to go to college by supporting themselves with part-time work. This is contrary to the traditional view that there is a dichotomy between vocational training and college preparatory training, since for these students vocational training is complementary to college aspirations. The career magnet schools also teach, both directly and indirectly, a work ethic which should help these students to succeed in adult life. Because of the lottery, students were often placed into new peer groups. Sometimes they became friends with students from other ethnic groups and income classes. Even new friends of the same socioeconomic and ethnic background were different from the friends that the students had in middle school because they shared a common interest in a particular career line. Thus, the new peer groups that formed in the career magnet schools were often sources of positive values for students.

In general, faculty members in career magnet schools were enthusiastic and had worked hard to develop their schools' programs. This was especially true in the smaller career magnets, which were administratively more manageable. However, in many cases the career magnet schools, like the comprehensive schools, were unable to provide all the help that low-income and minority students needed. For example, there was an insufficient number of counselors for students, who often need considerable career counseling. There was also little guidance counseling for the at-risk students who often came in via random selection. We saw some evidence that the career magnet schools, especially those in buildings dedicated entirely to magnet programs, had difficulty meeting the needs of students with poor academic backgrounds. The administrators of the career magnet programs tended to be of two factions—one half feeling that the career magnet programs could not serve the least prepared students and should not be required to do so, the other half feeling that the career magnet programs should develop stronger resources for meeting the needs of underprepared students.

ACKNOWLEDGEMENTS

This report owes a large debt to many people and institutions. Our greatest debt is to the students and educators whom we interviewed; without them this report would not exist. We also wish to thank the New York City Board of Education for permitting us to do this study. We especially want to thank Randal Blank, who prepared the statistical data tape for our use; his colleague William Wiechen; and the head of their office (the Office of Research Evaluation and Assessment of the New York City Board of Education), Robert Tobias. We also want to thank Robert Klein, Head of the high school division's Office of High School Admissions, and Ralph Miller and Michael Kownacky of Educational Testing Service (which is contracted by the Board of Education to carry out the lottery on its computers) for their considerable technical assistance. With Blank, Klein, and Miller always ready to answer our questions, we have no one to blame but ourselves for any technical errors in our research.

We would also like to thank the principals of four high schools for giving us permission to interview students and staff in their schools—but since the schools are anonymous in this report, we cannot thank them publicly. We also owe a great debt to four, very wise and hard working (but again anonymous) school professionals, one in each school, who helped us understand their school, helped us with sampling of students, and solved a thousand problems which would have crippled our fieldwork.

We would like to thank our best critics: Sue Berryman, Director of the Institute on Education and the Economy (where this project is based); two other colleagues at Teachers College, Michael Timpane and Thomas Bailey; and at the Manpower Development Research Corporation, Edward Pauly, George Cave, and David Long.

Finally, we wish to thank the staff at Teachers College—especially George Schuessler, Director of the Computer Center; Lisa Rothman and Michelle Cannon of the Institute for Education and the Economy; the staff at the National Center for Research in Vocational Education's (NCRVE's) main office at the University of California at Berkeley; the editors at NCRVE's Materials Distribution Service at Western Illinois University; and Barbara Raugalas, Robert Klein's secretary.

INTRODUCTION

Robert L. Crain and Amy Heebner

It is generally assumed that there is, and must be, a conflict between high school college preparatory education and vocational training and that the reality of the matter is that all students are forced to choose between the two. No one is happy with this unfortunate condition. In Europe, where students are sorted in early adolescence into academic and vocational education tracks, there is considerable support for reform, with increased pressure to allow students who finish the vocational track to obtain academic education (Hamilton, 1990). In the United States, the goal has always been to avoid separating students, but the actual result has been to produce some graduates who go on to college and other graduates who neither go to college nor have the training to permit them to enter good career lines. Critics of this situation say that the pseudo-egalitarianism of the American system only serves to create adolescent alienation. American adolescents, however, show little inclination to forego their chances of attending college by going to vocational schools, and many school districts relegate vocational training to an underfunded and unpopular position.

In the midst of this situation, New York City has embarked upon an ambitious policy of creating high school programs which attempt to integrate career education and academic training. New York City has had a history of creating high schools which are magnet schools, schools that are open to students from a large geographic area rather than a neighborhood attendance zone. In the past, however, these schools have been rigorous academic institutions like the Bronx High School of Science, Stuyvesant High School, or Brooklyn Tech; distinguished schools for the preparation of performing artists (especially the well-known Fiorella LaGuardia High School of the Arts); and a large number of selective schools for preparing students in science, humanities, and the arts. There is also a wide range of vocational schools, alternative schools created for students who either have had difficulty functioning in regular high schools or who want the experience of a different style of education and/or bilingual and special education programs for students who want or need special services.

Across the country, magnet schools generally fall into these same four categories—high level academics, advanced work in the arts, vocational programs, and alternative educational programs. New York City has added a fifth form of magnet school—the career magnet—to this collection. These schools (known locally as Educational Option programs) are career-oriented in the sense that in most cases, they advertise themselves as preparing students for a particular career in career fields ranging from law to fine arts to secretarial work. However, these schools are not vocational schools because they also prepare students for college and attract many students for that very reason. This is important because, given the American emphasis upon higher education, it would be extremely difficult to recruit students to a career school at the beginning of high school if that meant their giving up the option of attending college later. (This is especially true for African-American students, who have long seen higher education as their best chance for upward mobility.)

In New York City, career magnet programs are either "schools-within-a-school," located in comprehensive high schools (nearly every high school in New York has a career magnet program), or one of eight schools called "total career magnets," dedicated entirely to career magnet programs. In most cases, the career magnet program receives no additional funds from the school board (a few have federal or foundation grants) and reallocates dollars within its regular budget to pay for the special equipment the program requires. The only exception to this funding situation is found with "redesign" funds, which are available to a school when it is deemed to be such a failure that it is closed and then reopened with a new name and a new staff: These schools receive a supplemental appropriation for the first five years of their new life. Some total career magnet schools began their life as "redesigned" schools, making them the only career magnet programs that received extra funding.

Magnet schools have their origin in American racial conflict. Magnets were originally developed as a device for luring white students into attending schools in African-American neighborhoods, thereby reducing the need for mandatory busing reassignment. More recently, magnet schools have become the tools of a broader strategy of providing educational choice to students and keeping middle-class families from leaving the public schools. This intention has not relieved magnet schools of the controversy over equity, however. Indeed, most choice plans have been criticized for furthering racial, class, and academic segregation. Defenders of magnet schools contend that neighborhood comprehensive schools are highly segregated by race and class. They also claim that magnet schools, which draw students from neighborhoods of various ethnic and income populations, reduce segregation rather than increase it. Critics of magnet schools argue that the schools increase segregation either by intentionally selecting students for their abilities or by creating a set of admissions procedures which are most easily capitalized upon by middle-class parents.

When New York's first career magnets were designed, it was intended that they be like most magnet schools in America—selective. However, the New York City School Board has probably been more sensitive to issues of racial segregation than the school board of any other *de facto* segregated school district in the country. When the Board became aware of the conflict between the magnet schools' twin goals of being selective and furthering racial and economic integration, New York City chose a compromise strategy which noticeably reduced the segregative nature of the selection process. First, in the early 1980s, all students were required to apply to high school using a form which made applying to a magnet school as easy as applying to remain in a neighborhood school. Reading scores were also considered in assigning students. The Board required that each of the career magnet schools admit only one quarter of its students from those with reading scores in the top sixth of the city's student body and another one quarter from those in the lowest reading group; the remaining half of magnet students were to come from the large middle group of readers. (This division of students has since been changed. These changes are reflected later in the text: One sixth of magnet students now come from the top reading group; two thirds come from the middle group; and one sixth come from the lowest reading group.) Then, in 1987, in the most drastic change, the regulations were strengthened to require that one half of the students be admitted by a lottery, with preference being given to applicants who indicated a particular magnet as their first choice.

The Impact of Career Magnets

The first report in this series (Crain, Heebner, Si, Jordan, & Kiefer, 1992) found that students whose reading scores were above those of the bottom one sixth of New York students but below the top one sixth and whose middle school academic record was too weak to earn admission to the career magnets profited by winning the lottery. These students' reading scores improved more than those of students in the ninth grade in comprehensive schools, and they completed more of the courses needed for graduation. This fact raises an interesting question: "Why should teaching students about a career improve their academics?" Traditionally, vocational schools and other career-oriented schools have been evaluated by asking, "Do these schools accomplish their primary goal—training workers to be successful in the careers for which they have been prepared?" The traditional approach, however, is obviously too narrow and cannot explain how a career magnet can outperform a comprehensive school academically.

Why Are Career Magnets Effective?

We hypothesize that career magnets are effective because they have a dual, career-academic focus which prompts teachers to be more effective, makes the curriculum better, and increases student motivation.

There are, of course, other possibilities. It could be that these schools are effective simply because the school-selected students (who comprise half the student population in each career magnet) cause less classroom disruption and/or strengthen the school's norms of academic performance. There is also the possibility that the school provides better teaching and a better curriculum and that these have nothing to do with the school's career focus—any magnet school, regardless of focus, would do as well.

We think, however, that a strong theoretical argument can be made for the career focus having a direct positive effect on academic performance. Cognitive psychologists such as Resnick (1987), Scribner (1988), Brown, Collins, and Duguid (1989), and the Cognition and Technology Group at Vanderbilt (1990) are making a strong case for creating workplace-like settings in the school, using modern research to support the view that academic learning in school is actually less effective for cognitive development than is "situated," "anchored," or "contextual" learning. This view has a distinguished heritage. Berryman (forthcoming) quotes a passage from John and Evelyn Dewey (1915):

> A statement, even of facts, does not reveal the value of the fact, or the sense of its truth—of the fact that it is a fact. Where children are fed only on book of knowledge, one "fact" is as good as another; they have no standards of judgement or belief. Take the child studying weights and measures: he reads in his textbook that eight quarts make a peck, but when he does examples he is apt, as every school teacher knows, to substitute four for eight. Evidently the statement as he read it in the book does not stand for anything that goes on outside the book, so it is a matter of accident what figure lodges in his brain, or whether any does. But the grocer's boy who has measured out pecks with a quart measure *knows*. He has made pecks; he would laugh at anybody who suggested that four quarts made a peck. What is the difference in these two cases? The schoolboy has a result

> without the activity of which it is the result. To the grocer's boy the statement has value and truth, for it is the obvious result of an experience.—it is a *fact*.
>
> Thus we see it is a mistake to suppose that practical activities have only or even mainly a utilitarian value in the schoolroom. They are necessary if the pupil is to understand the facts which the teacher wishes him to learn; if his knowledge is to be real, not verbal; if his education is to furnish standards of judgement and comparison.

This statement is similar to a claim by Whitehead (1929) that school learning is often "inert knowledge," difficult to use because it is remembered as an isolated fact without any useful context.

By meeting career as well as academic needs, the career magnet makes the school's education more relevant and, hence, encourages students to learn more in their academic classes because these students are spending part of their day learning material relevant to a possible future career. Theorists who see the high school in this way find themselves in general philosophical agreement with the advocates of apprenticeship (Hamilton, 1990) and the critics of modern society who argue that industrialized countries, especially the United States, have created a prolonged period of adolescence which is harmful to young people and to the society. A career magnet education, they argue, is a way of connecting young people to adulthood rather than insulating them in a protective ghetto whose boundaries are defined by age.

A Model of Student Effort and Interest in School

Any model of student effort must be based partly on the idea that work is done in exchange for rewards. But this does not require accepting the simplistic models of effort implied by recent school reforms. Such models are predicated on the idea that students—having a strong desire to obtain a high school diploma and enter college, a keen economic awareness of the times, and little intrinsic interest in learning—prefer to do as little work as possible in achieving their goals of graduation and college entrance. If such a model is accurate, a simple solution to students' lack of effort would be to increase the difficulty of individual courses or of the curriculum in general, since doing so will force these students to do more work and, hence, to learn more.

There are two problems with this view. First, the model of the lazy teen who must be forced to work does not seem to account for the reaction students have towards their after-school work experience. According to research cited by Hamilton (1990), high school students find that their after-school jobs demand more of them, satisfy them more, and provide them more opportunity for responsibility than does their school work. Hamilton argues that this is not just the result of extrinsic rewards (i.e., wages); he concludes that the intrinsic satisfaction of the work is greater in after-school employment than it is in the classroom. All of this suggests that adolescents can be motivated by something other than compulsion.

Second, the model is at best only appropriate for students planning to attend a selective college. For most students, school has little to offer in exchange for their hard work. Bishop (1991) has written extensively on the absence of rewards for learning in high school and on the need to create them.

Furthermore, a theory of student effort needs to consider the effect of short-term rewards as well as long-term rewards. While students may, at some level, work hard in ninth grade in order to attend college four years later, they will have a difficult time maintaining this level of effort if there are no intermediate rewards. Thus, a school gives grades of "excellent" and "A" to college preparatory students as short-term rewards. But what short-term rewards can be provided to those students who are *not* academically gifted and well prepared?

Finally, we should note that these motivational mechanisms can operate in both a negative and a positive manner. Students who perceive that working hard in school will lead to unemployment and adult failure may experience more than a simple lack of motivation: They might find that any effort to work in school only reminds them of their fear of adult failure. Fear is a very powerful psychological mechanism, especially among young people in low-income and minority communities.

These ideas suggest four educational processes which might lead students in career magnet schools to invest greater effort in their schoolwork. First, it has long been believed that for many students schoolwork comes more easily if traditional academic lecture settings are complemented by schoolwork that involves more independent study, social interaction, physical movement, and cognitive abilities other than those normally stressed in traditional academic settings. If this is correct, then the use of vocationally-oriented classes—which may involve students working together as teams, moving about from one workstation to another, or exercising kinetic skills in activities such as keyboarding—should make it easier for them to apply themselves in their academic classes. According to this theory, academic high school teachers will benefit from having students enter their classrooms in a more positive mood and in better physical condition.

Secondly, many researchers studying adolescent deviant behavior have argued that students will be better behaved if they are given assurance of an opportunity to succeed in adulthood. In particular, Stinchcombe (1964) has argued that we should consider the school as negotiating a contract with the student. The student agrees to behave—that is, act appropriately—in exchange for the school's promise that it will prepare the student for a successful adulthood. According to this line of argument, the career magnet school should have more highly motivated students simply because it promises a career upon graduation.

A third argument is that the school's promise of a career after graduation is of great importance in the inner city where the average adolescent has a genuine and justifiable fear of unemployment, economic failure, and of the inescapable crime and terror of the ghetto. In this situation, a student may psychologically block thinking about the future—an unreal and intangible world where obtaining professional training is economically, if not cognitively, beyond their reach in many cases. If the school provides specific knowledge, training, and job placement, students' fear and denial of the future may be reduced. As a result, students may have a more positive attitude toward work and be more willing to accept the school's contract which offers a career in exchange for students' commitment to schoolwork. In contrast, the academic school may offer the promise of college; but for students who fear they will be unable to even begin (let alone complete) college, the contract is useless, and they will be unwilling or unable to think about whether schoolwork is relevant to that future.

Finally, there is a simpler argument. It has been pointed out that students prefer work to school. This is only partly because of wages; it is also because work does not carry with it the stigma of a history of low grades and "behavioral problems." The career magnet is a school, but part of what students do there is production, doing activities which "feel" like work. Hence, to the extent that the school looks less like a school and more like a workplace, students will find school an easier place to live.

The Occupational Effects of Career Magnets

Vocational programs are often criticized for teaching occupational techniques that become obsolete as soon as they are taught. Perhaps so, but this does not take into consideration the transferability—(1) from one occupational area to another and (2) from specific techniques in a single occupation to the whole range of attitudes required to develop a career—of what is learned.

One prepares for a career by learning facts and skills associated with a certain type of work. But as those simple lessons are being taught, more subtle lessons are being learned. The most important lesson for many inner-city youth is simply that of believing that one can indeed escape poverty and have a career. From that beginning, one learns that career planning is needed, that good performance now will affect opportunities later, and that out-of-school decisions—about work, obeying the law, postponing child rearing, and even choosing friends—affect one's future.

As students participate in career training classes, they also learn to work with others and to take responsibility for their work. Moreover, they develop an identity which incorporates their career goals: They are no longer merely students; they are beginning workers whose schoolwork is part of their adult career. They have reasons for wanting to be adults.

Methodology

The reasons for doing the present evaluation are rooted in New York City's random selection admissions policy, which provides us with the opportunity to develop a full-scale experimental design study that evaluates the effectiveness of career magnet schools. There have been very few research opportunities wherein students were assigned randomly to a school and a second group was randomly excluded from the school which permitted a strict comparison of the effect that a school has on its students. Certainly there has been no case where this has been done on a large scale. The random selection process in New York City, however, provides us with the opportunity to do an experimental evaluation of several thousand students, randomly assigned to over sixty different magnet programs. Thus, Crain et al. (1992) were able to employ an experimental design in the quantitative analysis of this large data set for the first report in this series on career magnets.

There are also real limitations to a sample of thousands, however. Surveys and school district computer files can only address certain types of questions, for example. However, there is an additional opportunity for ethnographic interviewing of a small number of students and school staff to complement large-scale studies. Moreover, we do not need to reject the advantages of the experimental design simply because we also choose to work intensively with a small sample.

This study, unlike the first and future studies of these career magnets, will focus on only one hundred thirty-two subjects—seventy students and sixty-two school staff in only four schools. Each site had a career magnet program, each with a different career emphasis. Two sites were "total magnet" programs; that is, all enrolled students in these programs were involved in some phase of the career education program. These sites are referred to as "the business magnet" and "the communications magnet" in this report. Two other sites each housed a career magnet program within a traditional comprehensive high school. These sites are referred to as "the cosmetology magnet" and "the criminal justice magnet" in this report.

The sample of seventy students builds on an experimental design by which we can compare "lottery winners," who were admitted to career magnets by random assignment, and "lottery losers," who applied to career magnets but did not win the lottery. "Lottery losers" include both those students who were not admitted as a result of "losing" the lottery and other students who lost the lottery but were then selected by the career magnets based on their middle-school performance. The sample of "lottery winners" was drawn from New York City Board of Education data regarding high school applicants for the 1987-1988 school year; "lottery losers" were sampled from comprehensive school files. At the time of the interviews, a predominant number of the respondents were in their junior or senior year.

The students we studied in the four high schools all came from three middle schools located in adjoining neighborhoods in Brooklyn. The interview sample was taken only from these four high schools and three feeder schools in order to increase the chances of drawing students who attended middle school together and/or lived in the same neighborhood—thus reducing sample variance, making comparisons among the students easier, and making analysis of peer group effects easier.

In addition to interviews with students, the study included interviews with sixty-two teachers, counselors, and administrators at the four school sites.

Sampling

The students were selected through a combination of stratified random sampling and purposive selection. One group consisted of students who had applied to the two total magnet sites and had been admitted by lottery in the fall of 1987. These were all students who had specified the career magnets as their first choice since only first choice students were randomly admitted because of the high demand for these programs. Student informants were then randomly selected from that pool in a highly stratified manner in order to ensure a balance of ethnicity, standardized test scores, and gender in constructing the final sample. An additional purposive sample was made of students who were school-selected in these two schools.

In the comprehensive schools, we worked with counselors to construct a random sample of students in the career magnets and in the regular comprehensive program. In order to provide a large enough sample of lottery losers, we oversampled students in the regular program of the comprehensive school. After replacing students who were impossible to reach or were no longer enrolled in school, our final sample consisted of thirty-nine students in the two total career magnet schools—twenty-one lottery winners and eighteen school-selected students—and thirty-three students in comprehensive schools—twelve students in the career magnet programs and twenty-one students in the regular program. In all of the samples, lattice sampling was used to achieve a balance of ethnicity, standardized test scores, and gender.

The sixty-two teachers, counselors, and administrators in the schools were purposefully selected to ensure that we had all of the counselors and administrators who were knowledgeable about our sample students and all of the administrators and head teachers who were responsible for program planning.

Our sample of lottery winners in the total magnet schools included students who had left school by either dropping out or transferring from these schools. However, we were unable to sample dropouts or transfers from the comprehensive high schools or magnet-within-school programs as a result of decisions regarding confidentiality made by the New York City Board of Education. In selecting student interviewees in the comprehensive high schools and magnet-within-school programs, we used school records that did not include dropouts or transfers.

Students and staff were interviewed alone (and in many cases more than once) for thirty minutes to three hours. We also often conducted additional interviews with students in groups of three or four; we did this to take advantage of peer support in obtaining more open descriptions of group norms and to obtain a sense of student interaction. Many interviews were conducted jointly by a white female and an African-American male in order to increase the likelihood of establishing good rapport. All interviews were tape recorded, and student respondents were paid.

EXPERIMENTAL RESULTS FOR THE INTERVIEW SITES

Robert L. Crain and Yiu-Pong Si

If we are to answer the question, "What do the student and faculty interviews tell us which will help to explain the high academic performance in these four career magnets?" we must begin by verifying that these particular magnet schools are successful. The schools we studied were selected for study prior to our learning which career magnets were successful and which were not, so it is important that we pause to verify that the magnet programs we are studying are at least as effective as the typical magnet school. To do so, we will present a statistical analysis of student outcome data. We can only do this for three of the four schools. The student interviewees participated in the lottery used for admission to the ninth grade in the Fall of 1987, but there were problems with the statistical accuracy of that data file. (It was from the first year of the lottery and there were some start-up problems). Therefore, we did our statistical analysis from the second lottery for students entering the ninth grade in the Fall of 1988. The cosmetology magnet program (which is within a comprehensive school) was changed from being a lottery program to being completely school-selected, so it did not participate in the second lottery.

As the earlier report noted (Crain et al., 1992), New York City's use of a lottery as part of the process of assigning students to schools is precisely the same as a random assignment of students in an experimental design. While the purpose of the lottery was only to provide a fair admissions policy, the outcome is exactly the same as if the purpose had been to create randomly accepted students and a randomly selected control group for comparison purposes. In our analysis of the lottery, we found that students who were admitted to the career magnet schools generally benefited educationally. For this report, in order to show that those schools also benefit students, we selected for statistical analysis only those schools where we interviewed students and staff. We used data for the first two years of high school (and in one case, for the first three years). The first two tables show the data for all three schools combined—one program each in a comprehensive school and the communications school and seven programs in the business school.

Table 1
There Are No Statistically Significant Effects of Lottery Outcome on Eighth Grade Pretest Values

(Differences Between Experimental and Comparison Group, in Standard Deviations)

Pretests	Reading Level		
	High	Medium	Low or No Scores
Reading Scores	.02	.01	-.21
Math Scores	-.19	.05	-.12
Grades	.07	-.01	-.13
Days Absent	.03	-.01	.02
Lottery Winners (n)	51-75	164-206	66-72

Note: None of the differences are statistically significant ($p < .05$).
Positive values represent higher scores in lottery winners than in lottery losers.
Negative values represent lower scores in lottery winners than in lottery losers.

The first task is to verify that we have a valid experimental design by showing that the students admitted by lottery and the students rejected by lottery in the three schools had similar academic records before high school. The data is shown in Table 1. The values show the advantage the lottery winners have over the losers, measured in standard deviations. Since there are many more lottery losers than winners, we show only the range in the number of winners since this has the dominant influence on statistical significance. There are no statistically significant differences, so there is no reason to suspect bias in the experimental design. However, the four largest differences all favor the lottery losers and are in two different reading groups, suggesting that there may be a small difference in these three schools between the lottery winners and losers. Such a difference would, therefore, cause us to underestimate any positive effects of the career magnet schools. Of course the lottery itself cannot be biased, but it is possible that differences between the groups are a result of the relatively small samples or of a fault in the record keeping, which might cause certain students to be inadvertently omitted from the analysis or perhaps to be misclassified in some other way. In any case, the results are reassuring, indicating either that the experiment is intact or that if it is imperfect. The resulting imperfection is in a conservative direction and would cause us to underestimate any positive effects of attending career magnet schools.

Table 2 shows the differences in student outcomes for the first two years of high school in five areas: reading, math, credits earned toward graduation, absenteeism, and drop out rates. The numbers in Table 2 are differences between lottery winners and lottery losers in standardized reading and math scores, standardized numbers of credits earned, standardized logarithms of days absent, and percentage of students leaving the city public schools or transferring to a different public school (these last two numbers are percentages and are not standardized). The differences in the standardized outcomes are all adjusted to remove differences between lottery winners and losers in pretest scores.[1]

Table 2 shows a mixed bag of findings: In some ways the students who won the lottery to enter these programs were better served than their classmates who lost the lottery, but in other ways they are not.

There are two positive findings. First, lottery winners in the average reading group have tenth grade (1990) math scores which are much higher than those of the lottery losers. The standardized scores have a standard deviation of 1.0, so differences in Table 2 can be interpreted in standard deviation units. For example, assuming a normally distributed set of test scores, we could use a statistical table to conclude that if forty percent of the lottery

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[1] The adjustment is made by asking, "How much did the 'gap' between lottery winners and lottery losers change between middle school and high school?" The middle school gap was the difference in pretest scores (in standard deviations), and the high school gap was the difference in posttest scores (also in standard deviations). The entries in the table can be written as "{winner posttest score minus loser posttest score} minus {winner pretest score minus lower pretest score}" for students for whom both scores are available. We constructed simulated pretest scores by regressing the posttest on four pretest measures—reading, math, absences, and grades—and then standardizing the prediction equation. This improved slightly the predictions made by using (for example) only the math pretest to predict the math posttest. Standardizing the predictor equation removes the tendency of regression methods to underadjust for prestest differences.

Table 2

The Effects of Career Magnets on Ninth and Tenth Grade Outcomes

(Differences Between Experimental and Comparison Group, in Standard Deviations)

Posttests		Reading Level		
		High	Medium	Low or No Scores
Reading Score:	1989	-.18	-.05	-.05
	1990	+.03	+.01	-.04
Math Score:	1989	+.01	-0.06	-.05
	1990	+.42	+.31**	+.01
Credits Earned:	1988-1989	-.03	-.05	-.27
	1989-1990	-.01	-.19**	-.21
Increase in Days Absent:	1989	+.48*	-.06	+.31
	1990	+.30	+.11	+.15
% Changed Schools		-.13	-.19**	-.02
% Left NYC Schools by 1991		-.34	-.23**	+.01
Number of Lottery Winners		17-25	105-169	18-36

* Statistically significant, $p < .05$ (two-tailed test)
** Statistically significant, $p < .01$ (one-tailed test)

Note: Positive values represent higher scores in lottery winners than in lottery losers. Negative values represent lower scores in lottery winners than in lottery losers.

losers passed the tenth grade math test, about fifty-two percent of the lottery winners would pass.[2] Unfortunately, there are only twenty-five lottery winners in the high reading group for whom we have test data, so the even larger difference there is not significant. One might wonder whether the higher performance of students in mathematics tests in the career magnet schools is only the result of the better students there taking the tests—and creating a bias. In fact, if there is a bias, it is against the magnet. Career magnet schools have more students taking mathematics tests, not fewer.

The second positive finding is that students who win the lottery which admits them to these programs are less likely to drop out. We have data through the junior year of high school, and we find that students with average reading scores are nineteen percent less likely to change schools; more importantly they are twenty-three percent less likely to leave the New York City system. We have no way of knowing how many of those who left the system completed their high school education in a private school or in another community, but at least some of the twenty-three percent difference reflects a higher dropout rate among lottery losers. There is also a significantly lower transfer rate from career magnets to other schools, but this may be because urban families move a great deal and comprehensive school students are more likely to change schools when they move.

The credits earned portion of the table is disturbing because it shows that students in these career magnet schools accumulate fewer credits toward graduation each semester than the control group. This is an unexpected finding because in our earlier study we found that for students coming out of middle schools, those going into the total career magnet schools earned more credits than those who lost the lottery and went to comprehensive schools. For this small sample, we now have an opposite result. We will study this question in more detail in our next report, but there are several explanations for this seeming contradiction. First, our sample is small. Second, there is some evidence that students who attend the ninth grade in junior high school accumulate more graduation credits than those who attend ninth grade in high school, whether the school is comprehensive or career magnet. Third, it is likely that in these three schools the need for career-oriented courses tends to push required courses out of students' schedules. It has frequently been said that the education reforms which increased graduation requirements have tended to prevent students from taking vocationally oriented courses. It seems that these schools are under the same pressure. By holding the line on career courses, schools are making it harder for their students to earn graduation credits. The data is only for the first two years of high school; no one at the magnet schools suggested that their students found it difficult to graduate on schedule, so it may be that even if students earn fewer credits in the first two years of high school, they still have ample time to complete all requirements in four years. Future studies will explore this further.

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[2] That is, forty percent of the cases lie to the left of a z-value of -0.25; a z-score that is 0.31 larger would be +0.06, and fifty-two percent of the cases would lie to its left.

The fourth portion of Table 2 suggests that in five of six cases (one is statistically significant) students in career magnets miss more days of school. This may be because of the greater distance traveled to school or may be (for students with low reading scores) a reaction to their poor performance in school.

On balance, despite the decrease in the number of credits earned and the increase in absenteeism, there seems to be enough evidence to suggest that these career magnet programs are more successful than the typical comprehensive school. The large gains in mathematics are statistically significant and more than offset small, statistically insignificant losses in reading. The reduction in dropout rates outweighs the slower rates of credit accumulation and higher absenteeism.

Tables 3 through 5 show the differences between lottery winners and lottery losers among students in the middle level of reading performance. The number of cases is too small to permit a program by program analysis of students in either the top or bottom reading groups. Indeed, even in the middle reading group the number of cases is so small that it is difficult to draw any conclusions about particular programs. There are only a few statistically significant differences in the tables and, therefore, little firm evidence to indicate that any particular program produces better results than any other. We include the results here not to praise or indict any program (especially since most of these programs have been reorganized since this data was gathered and any evidence from 1988-1990 would be of limited value for planning purposes) but instead to learn how much variability there is among the programs. In both the data and the interviews that follow, there are clear differences among the schools and sometimes between the programs in the business school.

Table 3 shows the results for mathematics. In general, there is a pattern of higher average performance for lottery winners than for losers. This is true even in those programs for which there is no obvious mathematical content. For example, it is no surprise that students who applied to and were admitted to the accounting and finance programs and to the communications magnet appear to have learned more mathematics than those who applied to the same programs and lost the lottery. Presumably, these career programs teach more mathematics as part of accounting or computer preparation. In addition to these expected differences, however, students gain or hold their own in the programs designed to teach office work and law.

Table 4 shows which programs have the most difficulty with its students meeting graduation credit requirements. There are two programs—computer science and communications (which has a heavy computer emphasis)—which particularly appear to have problems. We assume that this reflects these magnets' more stringent career-oriented curriculum, which may drive more conventional academic courses out of the students' schedules; but we are not certain about this explanation. The "career courses crowd out required courses" theory would explain why there is such a wide range in number of credits earned in magnet programs and would also explain why the seemingly most demanding programs (with the best students) have low numbers of credits earned. It is possible, though unlikely, that students in the career magnets are failing more courses. We have no record of high school grades, so we cannot determine this; but it is unlikely that magnet schools generally had high failure rates since this fact would almost surely show up in a higher, rather than lower, dropout rate because course failure is the best predictor of dropping out.

Finally, Table 5 shows the effect of winning the lottery on the chances of students staying in the New York City school system. The criminal justice and the communications programs have extremely high holding power. Students who applied to several of the programs in the business magnet also had very good chances of staying in school.

The positive results of career magnet education are interesting, but none of these measures are appropriate for evaluating the unique mission of the career magnets—to prepare students with the knowledge and attitudes necessary to enter a career. To evaluate the schools in terms of this mission, we rely on the interviews that follow.

Table 3

The Effects of Nine Programs on the 1990 Math Test Scores of Students with Average Reading Scores

(Math Scores, in Percentiles)

Programs	Lottery Winners (n)	Lottery Losers (n)	Difference
Criminal Justice/Law	41 (20)	40 (150)	+1
Communications	55 (15)	44 (82)	+11
Business:			
Accounting	68 (25)	53 (136)	+15*
Finance	74 (6)	45 (18)	+29
Marketing	62 (7)	53 (25)	+9
Business Law	65 (7)	44 (86)	+21
Computer Science	77 (10)	44 (220)	+33*
Information Processing	46 (2)	44 (17)	+2
Business Office Administration	52(21)	51 (66)	+1

* $p < .05$ (one-tailed)

Note: The programs listed here are those that were available when these students applied to high school; the list is not the same as the programs available at the time of our interviews.

Table 4
The Effects of Nine Programs on the Credits Earned Toward Graduation in Spring 1990 by Students with Average Reading Scores

(Means of Number of Credits Earned)

Programs	Lottery Winners (n)	Lottery Losers (n)	Difference
Criminal Justice/Law	4.00 (22)	3.65 (263)	+0.35
Communications	2.68 (38)	3.93 (136)	-1.25*
Business:			
Accounting	4.87 (30)	4.21 (213)	+0.66
Finance	4.02 (10)	4.56 (22)	-0.54
Marketing	3.82 (10)	4.23 (44)	-0.41
Business Law	3.62 (11)	4.02 (142)	-0.40
Computer Science	3.08 (19)	4.33 (326)	-1.25*
Information Processing	5.00 (2)	4.04 (35)	+0.96
Business Office Administration	4.69 (26)	4.63 (112)	+0.06

* $p < .05$ (one-tailed test)

Table 5

The Effects of Nine Programs on the Dropout Rate of Students with Average Reading Scores

(Dropout Rates, in Percentages)

Programs	Lottery Winners (n)	Lottery Losers (n)	Difference
Criminal Justice/Law	6 (32)	13 (367)	-7
Communications	8 (48)	19 (209)	-11*
Business:			
Accounting	11 (37)	12 (283)	-1
Finance	6 (16)	13 (30)	-7
Marketing	0 (14)	11 (62)	-11
Business Law	8 (13)	11 (194)	-3
Computer Science	5 (20)	12 (434)	-7
Information Processing	0 (3)	9 (45)	-9
Business Office Administration	6 (34)	8 (144)	-2

* $p < .05$ (one-tailed)

THE INTERVIEWS WITH STUDENTS

Amy Heebner and Will J. Jordan

Despite pervasive changes in the job market, most high schools have remained, in important program-related ways, the same. The career magnet programs represent New York City's attempt to help disadvantaged young people adapt successfully to the job market and its recent changes while also preparing them to enter college. The career magnets emphasize multiple career possibilities by integrating vocational training and college preparation and by offering "vertical" curricula that teach about different jobs, ranging from entry-level to advanced-level, within a given occupation, thus simultaneously preparing students for numerous career tracks.[3]

This study gathered information about the ways which adolescents think about the future, create plans, and take actions toward career goals. In our interviews we found many at-risk students responding positively to the multiple possibilities model of career preparation promoted by career magnets. This is one of very few studies that examines how adolescents conceptualize their work futures. According to one investigator,

> Little research has examined how individuals process the information that they obtain about themselves and the environment. My view is that this is the most compelling research challenge in career exploration for the coming decade. (Blustein, 1990)

The initial purpose of the interview study was to investigate the effects of the magnet school environment on student behavior. The first wave of interviews, however, suggested that the initiative and style of individual students were important factors in their school success or failure. Therefore, in addition to probing to discover the schools' influence on future planning, we found it appropriate to ask, "How did students make decisions that have long-term consequences in their lives?" "What events at what times pushed students into decisions that affected their future?" "What cognitive and social processes accompanied the making of future-oriented decisions?"

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[3] Since these career magnets are not generally funded through federal vocational education moneys, they are not required to teach "all phases of the industry" as specified by the recently amended Carl D. Perkins Vocational Education Act. It is, therefore, interesting that many of these schools have decided to use a vertical curriculum which is close to the intent of the Perkins Act's "all phases of the industry" requirements.

Students Describe the Benefits of Career Magnet High Schools

The interview study suggests that students who stayed in the magnet high schools benefited from the dual focus on vocational skills and college preparation, as well as from the schools' "magnetic" ability to attract a varied student body from all over the city rather than only from the schools' neighborhood attendance zones. The students became engaged in the following processes:

1. Planning for the future
2. Developing practical skills
3. Developing communication skills

Planning for the Future

Of the student interviewees who made first-choice application to the magnet schools and programs, more than three fourths said that the decision came from an interest in the particular career represented by that magnet.

In the magnet schools, students were encouraged to make career plans to meet their economic, intellectual, and social needs. While there were considerable differences in future orientation among students, even among those in the same school, the students who stayed in magnet schools thought in more sophisticated ways about their work futures than their counterparts in the neighborhood comprehensive schools. The student interviewees exhibited different degrees of specificity and levels of aspiration in thinking about the future, ranging from long-range plans to virtually no plans at all:

- **Long-range planning**
  1. Post-college education and specific career goal
  2. College and specific job goal(s)

- **Middle-range planning**
  3. College without specific job goal(s)
  4. High school and specific job goal(s)
  5. High school and military

- **Short-range planning**
  6. High school without specific job goal(s)

7. GED (General Education Degree) with job
8. Drop out of high school with job

- **Non-planning**

9. Drop out of high school without job

Many students enrolled in career magnets had multiple career plans. Some were considering careers in two or more fields, while others envisioned themselves in a variety of jobs within a single occupational area such as business. For some low-income students who wanted a college education, the plan was to use the vocational skills acquired in high school to get a job; to work through college; and, after college graduation, to find another job offering more intrinsic rewards and more money. We gave this pattern of multiple planning the name "parallel career planning" and see it as a positive force for many students, particularly those from low-income families. For low-income and minority students, the parallel career planning which the career magnets encourage seems to offer students the chance to develop more of the economic power and personal confidence they need to advance in terms of education, occupational status, and income.

Career-oriented high schools are sometimes criticized for limiting students' aspirations to noncollege jobs, cutting off the possibility of going to college. The New York City career magnets that we studied, however, do not appear to have this limitation. In order to recruit students, the career magnet must offer college as an option; otherwise, the school is seen simply as another unpopular vocational school rather than as an educational options program. While the career magnet formula may seem to seduce students into working immediately after high school and forsaking any aspirations for college, we found the reverse to be in fact true. According to our interviews, and as the cases below suggest, students who have a clear sense of having a job opportunity after high school are more likely to aspire to college knowing that there is a way to earn a paycheck during college and to get a "fall back" job after college.

Jeremie

As a junior in high school, Jeremie's long-range plans at the time of the interviews included big ambitions as well as realistic contingency plans. He planned to go to college but had already begun paid employment using his skills in computer applications, skills that he developed in the information systems program at the business magnet. Jeremie's family is from Jamaica, and he is the child of a thirteen-year-old woman and was adopted by a friend of his natural mother immediately after his birth. His legal mother and his grandmother were the main parental figures in his family circle, which also included alcoholics, drug abusers, and fathers of illegitimate children. Jeremie had been a successful school-selected student at the business magnet, but his curiosity and creativity could have been squelched in a less receptive, less flexible school environment. He liked to study different things and loved the racial mix of his fellow students. The school environment gave his life more structure, as well as more variety, and was a respite from a chaotic family and neighborhood environment. The magnet high school, which selected Jeremie for enrollment based on his good record in junior high school, helped him envision a future that would be different from that of his male family members. When asked to describe his first job after college, he said:

> That job would be consisting of—I don't like to sit in one place. I don't like to do the same thing over and over again because that becomes monotonous, and I probably wouldn't stay at the job very long. I like a job with variety, a chance for advancement—something not so dangerous where you have to jump off a building, something where I could be in a building but also be different places as well, something where I could travel, something where I can use my imagination as well as copy something else, something where I might make a name for myself. I'd like to be known. You know, so I wanna be known. Who doesn't? Some people don't, but I'd like to be known somehow. Yeah. Something which is well-respected. I want a respectable job. I don't want anything that would be—you know, I don't wanna be a gun manufacturer. Yeah, that wouldn't be respectable. I wouldn't wanna be the manager of a strip joint. I don't think that would be too respectable. I want something that's like a safe job which you can put on your resume and people will not go, "Mmm, we'll get back to you." Yeah, I wanna job with a six-figure salary. . . . Or a high five-figure salary wouldn't be too bad. Or even a mid-five-figure salary. I'll take anything with money.

It is often said that many African-American adolescents have inflated, unrealistic career aspirations. When their grand hopes are dashed, as they often are, many supposedly give up the pursuit of their dreams and turn to drugs, theft, violence, and indiscriminate sexual activity. Yet the story of Jeremie, like that of other students we interviewed, suggests an opposite theory: Grand aspirations may provide the fuel necessary to "move up" economically, professionally, and socially. Young people like Jeremie may need the energy of big dreams to work their way into a higher socioeconomic class. In Jeremie's case, his lofty ambitions were accompanied by alternative plans that more closely matched his current skills and schooling. For example, he told us that if he had to get a job, he would probably look for "something with computers" and explained that his favorite experience at the magnet school was his job as a mentor in a computer class. This was an excellent placement for him since he liked computers and also enjoyed talking to people. Jeremie also described the high level of commitment he made to his work as a math tutor, a paid job at the school:

> I tutored math. I tutored . . . all the math except calculus, and it feels good. . . . People will come to the classroom, and I'll tutor them, and they will either come out learning something or nothing here. . . . When we started we had about twelve tutors; now we only have about eight. In October we had about twelve, in January we had ten tutors, December we had about nine tutors, February we got two more, and then two of them just stopped coming after a while, and then we only had seven at the year end. But, yeah, they all came for the pictures, though, at the end of the year. Like, "I tutored for a week, so I'm in the picture, right?" "Yeah, 'cause you wanna be." They came for the party, too. They only come for the good stuff. They don't come for the work. I'm the one that stays.

The school gave Jeremie the opportunity and the context in which to learn to tutor, but Jeremie provided the persistence necessary to excel. The business magnet gave him skills and introduced him to concepts that could lead him to a glamorous job, but the program also prepared him to take less glamorous jobs that are more readily available than his ideal job with the six-figure salary.

Developing Practical Skills

Students who won the lottery and stayed in their career magnet high school said that they liked classes such as keyboarding, stenography, and hair dressing, that helped them develop vocational skills. Students said they also liked working, whether the job was obtained through the school or not. They liked the skill classes and jobs for two main reasons: (1) the students wanted to make money and to know their skills were marketable, and (2) they preferred motor activities rather than sitting still in a traditional classroom with "frontal" teaching. The development of practical vocational skills was the clearest perceived benefit of magnet school enrollment for the lottery winners who stayed in school.

The students we interviewed who won the lottery and persisted at their magnet school had average academic records in junior high school. Many came from low-income families. The five cases that follow (Maggie, Kathy, Erika, Ritza, and Yvonne) illustrate how developing practical skills benefits students attending career magnets.

Maggie

Maggie, a junior, was one of four girls (two Hispanic and two Asian) in our interview sample who benefited from the secretarial science classes at the business magnet. Maggie liked her secretarial science major and described her stenography class as one of her favorite courses:

> At first, I thought it would be very hard to learn. It's like another language, and I'm not so good at languages. But I learned it and I was surprised and now I can use it in other classes. It's like—it's like knowing another language.

Maggie's pride in her ability to learn stenography added to her self-confidence. She believed that she could find a secretarial job after high school and considered this as a career option. Her Hispanic family was split in two by her parents' divorce. Maggie lives with her mother, stepfather, and a nine-year-old sister, while her father lives with her stepmother and baby stepsister. She adored her father and felt closest to that side of the family, which included a brother who lived with her father's former girlfriend. However, Maggie cited her mother as her best friend. Maggie said that her mother told her, "You can tell me anything," and Maggie did confide in her about important issues, including friendships and career aspirations. Maggie said that her friendship with her mother was especially important because she (Maggie) had recently been "stabbed in the back" by peers, formerly considered her "best friends." Maggie's new friends were from her school rather than her neighborhood, and she saw them as acquaintances rather than as confidantes.

In addition to the skills she was acquiring in the high school secretarial science program, Maggie also worked at a job in a clothing store which she got through the school's cooperative education program. She worked alternate weeks at the store and attended regular high school sessions at other times. At the clothing store she worked as a saleswoman and cashier and helped to maintain the clothing. The job had a general connection to her interest in business, offering practice in general workplace skills such as communication, punctuality, and dress habits. However, the job did not develop skills necessary for secretarial jobs or for teaching jobs, her second stated career interest.

Maggie said that she did not like math. She used to dislike English as well but found an English teacher who engaged her interest in a business English course. This course emphasized practice in English grammar, knowledge that Maggie, whose first language is Spanish, would require in any secretarial job she might take. She said that the business English class was "dealing with my major so it's more interesting." Her success in the career specialty added to her confidence and compensated for her struggles with math and other academic subjects.

Kathy

Kathy is another lottery winner, also Hispanic, who has clearly benefited from the dual emphasis on vocational training and college preparation as a junior at the business magnet. Kathy said she "loved" the secretarial science major, mentioning that the courses in stenography and business English (that Maggie discussed above) were her favorites. Kathy especially enjoyed learning to proofread in the business English class. Although she definitely wanted to go to college, she felt well-prepared for a secretarial job because of her courses in secretarial science. However, Kathy was also aware that there are different levels of status and money for jobs in business, and she set her sights on a "good Wall Street job." She said, "Everybody seems to want to work on Wall Street, so I would like to work there." Her father worked as an accountant for a Wall Street firm and encouraged his daughter's aspirations. However, Kathy said that she seldom talked to her parents about her career aspirations. She and her friends say that their parents are too "old-fashioned" to understand what Kathy and her friends want to do and to be helpful to them in their career plans.

A good student with grades in the eighties, Kathy presented a polished persona when she came to be interviewed, as if she were prepared for a job interview. The interviewer asked if there were any classes at school in which she learned how to look for a job. In reply, she described a recent meeting held by the school for all the secretarial science majors, a meeting which showed the students how to apply for jobs in the New York Stock Exchange. Kathy held a secretarial job at a lawyer's office for two summers but found that her grades went down when she tried working during the school year.

Would Kathy be as confident as she appeared if she were attending her neighborhood high school? Probably not. With the exception of seeing her friends, the secretarial science major was her main source of satisfaction at school. She did not express any particular interest in academic courses. The development of practical skills and job knowledge, such as how to go to a job interview, contributed to her self-confidence; but academic work has not enhanced her self-esteem. Kathy wanted to go to college not because of an interest in scholarly pursuits, but because she believed a college education would help her advance in the field of business.

Erika

Students from low-income backgrounds have special dilemmas when they try to imagine productive futures for themselves. They experience a painful gap between what they want and what they think they can get. Erika, a junior, is a low-income minority student who used the communications magnet to help create a bridge to bright, but realistic future plans.

A lottery winner, Erika is a friendly Hispanic girl from a two-parent family that has had its share of problems. Nine years ago the family moved to Puerto Rico thinking that perhaps life would be better there than in New York City. Erika's father, who was a plumber in the United States, had difficulty finding work in Puerto Rico and retreated from his family into alcoholism. Then the family moved back to the United States to mend its wounds. The father stopped drinking, and the family seemed to be cohesive. Erika's story revealed a young person with clearly defined values. Although her mother may have had a positive influence on Erika, it was clear from interviews that the Jehovah's Witnesses were the most important influence on her moral development, a phenomenon discussed in more depth in the section titled "Ethics in Work and Love." When asked about her career goals, Erika said that she wanted to preach but that she also planned to have a job to support herself, a common practice among the Witnesses. She also expressed a strong interest in marriage and family, which probably contributed to her plan to prepare herself for a job immediately after high school graduation. She said she did not plan to go to college. She does not believe that college leads to a better job, citing examples of several friends who obtained "good jobs" in offices without college diplomas. Erika attended school regularly and worked hard at her studies, receiving grades that fluctuated between mid seventies and low nineties. She applied to the communications magnet because of her interest in her mother's occupation, secretarial work:

> When I was a little girl, I always wanted to be a secretary since I saw my mother working as a secretary and I would go with her sometimes. Then I said I wanted to be a secretary. But now the computers are used, so you no longer can use a typewriter. So I got interested in coming to Communications High School. That was my reason for coming here, to learn more about computers and office technology.

Erika has practical, achievable goals for a productive life that includes both work and family. She benefited from the emphasis on technology at the high school and also worked on her basic skills in English and math. The school seems to have encouraged her to think specifically about careers and jobs. Erika had the additional support of peers in the Jehovah's Witnesses, and this support was clearly an advantage for her in comparison with other students who did not have similar peer groups. But Erika also had the disadvantages of a volatile, low-income family and a spotty academic record in junior high school which made her an at-risk student. The school has been one of the factors in her life that has tipped the balance in favor of a positive, creative view of the future.

Ritza

Ritza is a senior in the cosmetology magnet, one of the two magnets located within traditional comprehensive high schools included in the interview study. She did not work in cosmetology during high school because she had not yet gained her license, but she planned to work in the business part-time while going to college the following year. At the time of the interview she had been accepted to two local colleges and was deciding which she would attend. The high school's vocational emphasis helped her feel confident in her ability to get a job after high school and gave her the ability to consider two different occupations. She described her "parallel plans" in her own words:

> This is my last year, and I'm going to get my license. After I get my license, I'll just go to college for business. If one don't work out, I'll go to the other.

Yvonne

Yvonne is a senior in the criminal justice magnet (the other magnet located within a traditional comprehensive high school in this study). She became interested in law when she got into an argument about slavery with her eighth grade teacher and discovered that she was excited by the process of argument. From her experiences watching lawyers on television, Yvonne knew that lawyers need to argue skillfully. Therefore, when she applied to high schools in the eighth grade, she decided that she wanted to attend the criminal justice magnet, listing it as both her first and second choices on the high school application. After completing her high school program, Yvonne planned to enroll in a paralegal studies program at a local community college or a state college about five hundred miles away from her family's home. After college she wanted to "push on" to law school then find herself "a good legal job." She said she would prefer to do legal research rather than litigation. The criminal justice magnet offers a "vertical curriculum" that gives students familiarity with a variety of occupations within the field of criminal justice. This approach inspired Yvonne to consider a variety of possible futures, including those in which college and law school played a role.

Developing Communication Skills in a Desegregated School

The student constituency of the educational options program changed with the 1987 mandate from the New York City Board of Education, which required career magnet programs to admit fifty percent of their incoming students by lottery. Students who would have been rejected in former years because of inadequate performance in junior high school would be given a chance to enroll in these prestigious magnet high schools. Interviews for this study found that the lottery forced incoming students to make new friends. Many lottery winners benefited from the opportunity to mix with students who had better academic records and higher-income families and who came from all over the city rather than only from the student's own neighborhood. The effect of the citywide, desegregated student constituency on lottery winners appeared to be one of the main benefits of career magnet attendance. In comparing the lottery losers with lottery winners, we found that most lottery losers who stayed in the neighborhood high schools continued to spend their time with old friends from junior high school. With few exceptions, lottery losers were not exposed at school to future possibilities beyond the experience of old friends and family. Those lottery losers who expressed grand ambitions lacked the self-confidence of lottery winners with similar grand ideas about the future. In contrast, we found that the lottery winners who stayed in the magnets used the school environment to expand notions of future possibilities and to develop more diversified communication skills. New friendships broadened and enriched their world views—as was the case with Enrice and Carl, who are described below (and in more detail in the "Ethics in Work and Love" section).

Enrice

For Enrice, the move to the communications magnet was a journey away from a world of risk and violence. Enrice, age sixteen and a sophomore, is a "writer": he spray paints subway trains late at night, risking his life on the tracks. His male friends come from his home neighborhood and are also "writers." Enrice applied to the communications magnet because he thought it was a safer place than his neighborhood high school:

Enrice: At my zoned school, Wingate, I have a lot of enemies, you know, because they've got this thing for writers.

Interviewer: At Communications High?

Enrice: Not in there. For graffiti writers. Because my friend, his name is Reuben, that died on the train? That was him. I used to write with him. So I used to write around my way, and I used to cross out a lot of people. And they know me by . . . .

Interviewer: When would you do this? At night?

Enrice: We used to go out real late. We used to go out to Connecticut, New Jersey, Long Island, just to write.

Interviewer: Since when did you do that?

Enrice: From the beginning of junior high school.

Interviewer: And then when did you stop?

Enrice: I didn't.

Interviewer: You still do?

Enrice: Right.

But the glamour of the graffiti world began to wear off for Enrice as a result of two crucial incidents. One was the death of his friend, Reuben, on the tracks. A second chastening experience was Enrice's week in prison, the result of an arrest for shoplifting. (Both incidents are described in the next section of this report.) Enrice found a refuge from the graffiti underworld at his high school. Even though two graffiti-writing buddies also attend the same high school, Enrice discovered two new friends who pointed the way to a new life. One of these was a Marine recruiter whom Enrice met at the school. Enrice said that at first he was thinking of going to college when he got out of high school, but then he started cutting classes and "messing up" and got into trouble with the school authorities. After talking with the recruiter, Enrice decided that the Marines would be a better situation for him because they would force him to discipline himself. High school is also the place where Enrice met Barb, his girlfriend for nine months at the time of the first interview. They were married shortly thereafter. Barb attended school regularly and appeared to be a reasonably controlled person. Enrice recognized this and latched on to her just as he latched onto the Marines—as a way to bring order into his life.

In Enrice's case, the high school both succeeded and failed. The school failed to engage Enrice's interest. Although his high school had substantial offerings in art and computer programming, areas in which he was interested, no one managed to harness the energy that went into his graffiti writing and to transfer it to a school-related activity. This, along with the fact that he has never taken even one art class, is an indication of the school's failure to provide students like Enrice with adequate counseling services (a problem which will be discussed further below). The school did succeed, however, in providing a context in which Enrice met people who represented more conventional, orderly value systems than that of the graffiti subculture. The school, then, was partly responsible for turning Enrice's life around (1) by providing a socioeconomically desegregated student body and (2) by including the nonschool world, exemplified by the Marine recruiter, in the school environment.

Carl

Carl is a tall, handsome West Indian, a junior at the business magnet who was admitted as a lottery winner. Carl thought that the lottery admissions policy was a good idea because it allowed students with poor records to attend the school, giving them a chance to change. Carl himself recently changed his social life, leaving behind a group of old friends who were involved in fights and who did not take school seriously. He described incidents of violence with peers from junior high school and described cutting classes with his friends, but these activities were in the past. Changing peer groups also made it easier for Carl to relate to the adults in his new school.

Carl's grade point average in high school was seventy-two, and he seemed confident of his ability to get into a college. He planned to go away to college to study business then to go into business for himself in whatever field seemed promising when he graduated. His realistic, flexible attitude was a positive factor in his future outlook. His parents supported his plans for the most part, although his mother did not want him to go away to college. Carl did not intend to let his mother's objections stop him.

The school not only gave Carl a career focus, but also provided him with adult role models who helped him turn his life around. He discussed three different school adults with whom he communicated well and who were encouraging him to work harder in school. Carl was particularly enthusiastic about Mr. Miller, the Student Life Coordinator at the school:

Carl:	He usually influences me a lot. I like him.
Interviewer:	What kind of an influence is he?
Carl:	A good one. Like I said, I value their [the three adults'] opinion. If they say something, I do it. If they think it's good, I do it. He [Miller] already told me I better go to college. So I'm doing that. He already told me to stop walkin' the halls, so I'm not in the halls no more. I value his opinion. All those teachers that I mentioned—I like them. They see me doing something wrong, and they tell me "don't do it." I'll stop doing it right there. You know I give them that much respect. That's how I see it. Because if I give them respect, they give me respect. And also basically all of them allow me to just express myself. They don't always say, "It's this way, it has to be this way. It's this"—and leave it that. They let you talk your side. Then they tell you what you should or shouldn't do. They just voice their opinion. I value that. That's the way I see it.

Carl constructed good relationships with at least three teachers. Apparently, the teachers responded to his "respect" and his "flexibility," the key tools that Carl used in communicating with school adults.

Student Complaints about Career Magnet High Schools

In the interview sample, there were twenty lottery winners who enrolled in one of the two total magnet schools in either the ninth or the tenth grade year. Nine of the twenty lottery winners withdrew from the magnet high school before graduation. Eight transferred to another school or GED program, and one student (Jeanne, described below) dropped out of school. The dropout rate, one in twenty, is very low and is apparently accurate since it agrees with the experimental results presented earlier. But the forty-five percent transfer rate is startlingly large and, even when the small sample size is considered, suggests the presence of a serious flaw or flaws in the educational options program.

Interviews with students who transferred or dropped out suggested the following:

1. The career magnets do not serve underprepared students as well as they do students with stronger backgrounds.

2. All high schools offer inadequate or ineffective counseling to students.

Inadequate Services for Underprepared Students

The most troubling aspect of the career magnets was their lack of extra help for underprepared students. The lottery opened the school door to students with attendance problems and below-average academic records but did not ensure that they could or would stay in school.

The Board of Education mandate established the fifty percent random selection policy but did not specify any changes to be made in school practices. Therefore, individual schools had to decide how to solve the problems of integrating underprepared lottery winners with the rest of the student constituency. The schools varied in their responses. For the total magnets, adding remedial courses meant reallocating resources and reducing the number of advanced career-oriented courses. In the comprehensive schools, the magnet programs were sometimes able to use the remedial services provided by their host school, but even there remediation disrupted their curriculum.

Inadequate or Ineffective Counseling

Both the career magnets and the traditional comprehensive high schools needed more counselors. At the business magnet, for instance, each guidance counselor had a caseload of five hundred students. In this situation, counselors could do little to prevent lottery winners from dropping out or transferring to other schools. Students such as Enrice could not get the personal attention they needed from the overburdened counseling staff. The counselors were not only burdened with too many students but were also overwhelmed with paperwork that included scheduling, college recommendations, and the like. In fact, when asked whether they would prefer to reduce the caseload or the paperwork, most counselors said they would prefer to reduce the paperwork. Most counselors said they enjoyed counseling students, and some said they welcomed days spent with students who had serious problems. These counselors enjoyed helping students and using their professional expertise.

The schools need more counselors, but they also appear to need more diversity among the counseling staff. For example, one career magnet had only one African-American among eight guidance counselors working full-time with students. The other total career magnet had no African Americans employed as guidance counselors. The desegregated magnet schools, in particular, need to offer students a group of counselors who can work with both males and females of different races, socioeconomic levels, and academic achievement levels.

Most lottery winners who stayed at the career magnets enjoyed the diversity among students. At worst, they were neutral toward the presence of different racial groups within the career magnet. However, two of nine magnet dropouts cited "racism" as one of the reasons for their leaving a career magnet. Maria and Jeanne, who are described below, may have been more sensitive to racist attitudes than their peers who stayed at the career magnets. Both failed to make new friends in the first semester at the career magnet. Maria, who is white, was turned off by the exclusivity of racial cliques among students at the communications magnet. Other students at the same school accepted the fact that students formed cliques with others of the same race and were grateful that there was no overt hostility among the different groups. Jeanne, who is African American, got into a fight with another student on the subway and was subsequently suspended by school authorities. In describing her discussion about the fight with school officials, Jeanne's mother said that the school officials were "racist."

Maria

Maria is a white lottery winner who said no to the career magnet alternative. She applied to the communications magnet, was accepted, and entered in the tenth grade. Her story suggested that she was lonely because she did not succeed in making friends with peers or with school adults. She said, "I only had one friend and she transferred to the neighborhood high school, so I went with her." Maria said she was unhappy because of racial cliques among students at the magnet school:

> Puerto Ricans hang out with Puerto Ricans, whites hang out with whites, blacks hang out with blacks. And if you would like . . . cross over the line, they would look at you. I mean I used to hang out with Puerto Ricans; I used to hang out with blacks. I hardly ever hang out with whites and I'm white. It's just what I have in common with . . . that's who I hang out with.

Somehow the magnet school failed Maria. Although she received grades in the seventies and eighties, she decided to transfer. She was not able to get the personal help she needed from counselors. She was assigned to a full schedule of Regents classes[4] but

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[4] Regents classes are classes that students take to earn a Regents diploma in the State of New York. A Regents diploma is viewed as more prestigious than the usual high school diploma.

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found the program too difficult, especially the English classes. Although she reported that she tried repeatedly to transfer out of Regents classes, she could not persuade her counselor to change her program. Dissatisfied with the school's counseling and her perception of students' racist attitudes, she filled out transfer papers four times, and finally was enrolled in the neighborhood high school.

At the neighborhood high school, Maria's grades "hit bottom." However, she got nineties in science class. Maria explained that she had a "cool teacher in junior high school" who turned her on to science. But she did not stay at the neighborhood high school, even though her mother and a counselor spoke with her repeatedly, trying to persuade her to see a psychologist in order to cope better with high school. The counselor, liked by Maria, said that Maria had a "fear of school" and that a psychologist might be able to help her:

Maria: When I told my mother I was gonna quit school, she was like, "No, don't quit school. You're gonna regret it." I was like, "But I'm not goin', so why should I even be enrolled?" But when I dropped out, they wouldn't let me drop out. That's what would happen. Because I was sixteen years old and you hadda be seventeen, I guess. That's what they said. I didn't think she, my guidance counselor, wanted me to drop out 'cause she's my best friend in school. I mean, she's the best. She helped me with everything . . . I mean she . . . "Make sure you're in my office."

Interviewer: Did your mom ever come in to talk with you and the counselor at the neighborhood high school?

Maria: Yeah, at one point they wanted me to go see a psychiatrist because they said that it's something wrong if I'm not goin' to school, that something must have happened. But nothing happened, you know. And I was like, I just don't wanna go. I mean I've been in school since I was what? Six? Who wants to go anymore?

Interviewer: Okay. So who wanted you to go to a psychiatrist?

Maria: Ah, well, the counselor . . . had suggested my mother to take me. She said I have a school phobia or something. I have a phobia of school. I said, "I ain't goin' to no psychiatrist."

Interviewer: Did your mom actually go in and talk with the counselor and you?

Maria: Yeah.

Interviewer: And they were telling you, "Oh, maybe you should go see a psychologist or psychiatrist, and you can get over this."

Maria: Well, my mother went to sign me up. I says, "Well, no. You can't sign me up." 'Cause I was too young. I don't know. There must be something wrong with school because all my cousins have . . . dropped out. I mean my fifteen year old cousin dropped out of school this year. And she was livin' with me and now she lives in Florida. And she goes to school there. I think there's something wrong with New York schools, to tell you the truth. Because . . .

Interviewer: What's wrong with New York schools?

Maria: Well, there's a lot of drugs in school, you know. People like, just like, "Well, there ain't no drugs." But there is. Especially at my neighborhood school. I mean I used to hang out with the drug dealer, so I know. And the problem with guns, I don't know. I know one guy got busted for havin' a gun when I was there. One guy got shot when I was there, so you know. It's kind of scary to go. But that's—but you have to figure, that's the neighborhood, so it's scary all over. So I'm used to that.

Finally Maria went to a GED program, an alternative that the helpful counselor discussed with her, and obtained a GED diploma. At the time of the interview she was seventeen years old and working in a neighborhood supermarket and had applied for several entry-level jobs in civil service and in a hospital. She planned to save money to go to a four year college and then to work in business, hoping to have a managerial position.

Jeanne

Jeanne, age eighteen, is an African-American woman who dropped out of a magnet school, her neighborhood high school, and a GED program and worked at McDonald's at the time of the interview. When Jeanne applied to the communications magnet, she was interested in telephony and computing. She thought that the high school would offer her training in these areas but found that she was "bored" after a time at the school. Jeanne was separated from her neighborhood friends and did not succeed in making new friends at the high school. She got into a fist fight with another female student on the subway, an incident which led to her suspension from the magnet school and to her decision to transfer to the neighborhood high school.

Jeanne and her mother told the following story about the results of the fist fight: Jeanne saw her counselor three times after the incident. The counselor refused to let her re-enter classes, insisting that he wanted to talk with her mother face to face. This led to a conversation between Jeanne, her mother, the principal, and the guidance department chair in which the school officials decided to suspend Jeanne. According to her mother, the school officials were "racially prejudiced" and their prejudice was the reason they suspended her daughter from the magnet school. When asked to describe the racial prejudice, the mother could only say that it was in "the way they talk, the way they communicate; you'd have to be there to see."

Was Jeanne so angry that she could not behave reasonably well in a high school? Apparently that is what the officials at the communications magnet decided. Jeanne's suspension was partly her failure, but it was also partly the failure of the school. The school failed to provide her with the information and role models she needed to adjust to the new social environment. Six months after the suspension, Jeanne transferred to her neighborhood high school where she attended classes for a time. But less than a year after transferring from the total magnet high school, she decided once again to leave school. She then decided to transfer to a GED program which she did not finish.

When interviewed, Jeanne was living at her mother's home with her mother, her sister, and her sister's son. She said that the most important thing to her was working and explained that she had held a job at McDonald's and wanted to find another job. Jeanne was soft-spoken and somewhat depressed during the interview, and her description of her work history revealed her difficulty and struggle finding a good job. The interviewers asked her repeatedly to describe how she had looked for jobs. She said that she had been interested in nursing, her mother's occupation, for some time. She described a conversation with a counselor at her neighborhood high school in which Jeanne said, "I wanna be somebody who helps somebody." She looked for a job as a nurse's aid by reading ads in the newspaper but found that she had to get more training. When she heard from a neighbor about a state test for psychiatric nursing, she arranged to take the test and passed with a 76; but she was not able to find a job. The interviewers asked her when she had most recently looked for a job. She said that two months ago she found an ad for a bank teller position in the newspaper. She telephoned and made an appointment for an interview but decided not to go at the last minute. When asked why she didn't go to the interview, she replied that "nobody was home to take care of Simon" (her sister's son).

The interview suggested that one obstacle to Jeanne's progress was the network of family and friends that surrounded her. These people cared about her and formed her community, but they were caught in the same web of poverty, limited knowledge, and fear in which Jeanne was ensnared. Her family and peers did not know the way out of the trap, so they could not serve as role models or gatekeepers for Jeanne. For example, she was asked about the value of a high school diploma:

Interviewer:	What would the benefits of a high school diploma be?
Jeanne:	I don't see it.

Jeanne did not believe that obtaining her high school diploma would help her get a better job. It is not surprising that given the choice either to return to high school or to work at McDonald's, she preferred McDonald's, which provided a reliable paycheck and friendly, compatible peers. Jeanne did not have friends or family members who had used a high school or college diploma to find a good job. Instead, she told a story about the uselessness of school: Of two female friends who had gone to Boston to attend college, both dropped out. One is currently unemployed; the other is now attending a cosmetology training program.

Jeanne's mother encouraged her daughter to continue her education: "I think she need to go into her education before she go into nursing." But to her mother, education meant a conventional high school diploma. The mother said she did not approve of GED programs—probably because she did not understand them. This is the sort of double bind with which young people like Jeanne must struggle. While her mother said, "Get an education," she also said, "Don't get a GED." At age eighteen, Jeanne is better-suited to the social context of a GED program than to a traditional high school because GED participants would be closer to her age. In addition, a GED program requires attendance only from noon until mid-afternoon, a schedule that would allow her to work at night, have friends, and participate in family life. Other students and school adults have also told us that the school schedule—with classes starting an hour before most white-collar workers start work—is one of the worst features of high school. As one counselor said, "The school system is *so* rigid. The schools in New York start at eight because the farmers have to get up early." In New York City, the early school starting time is a problem for many young people because it makes it difficult for them to get enough sleep if they hold evening jobs. Students who want money often are hired for evening jobs because many adults do not want to work at night. (Defenders of the early starting hour argue that it is more important to allow students to work afternoons.)

Jeanne was enmeshed in a web of conflicting pressures, but she was not entirely passive. She made efforts to get ahead, but was pulled back by counter pressures from her family and peer network. She tried a total magnet school, the neighborhood high school, a GED program, and a job at McDonald's. Although some observers emphasize the limited options available to young people like Jeanne and throw up their hands in despair, it is possible to see considerable persistence and resourcefulness in her behavior. These positive attributes suggest that Jeanne and others like her could become productive citizens if they received the help they need.

Evelyn

Evelyn applied to the business magnet because of her interest in business and a desire to expand her world beyond the low-income Brooklyn neighborhood where she lived. She won the lottery and enrolled but dropped out of the business magnet because "they wanted too much out of me." She also said that it was too easy to walk out the door: "It was hard to walk out the door in junior high school." When interviewed, she was enrolled in a GED program and was beginning to attend a commercial business school. She was excited about the business school because they offered her a job she liked. Evelyn had ambitions for the future. She planned to go to college, perhaps a two-year school at first, and to transfer later to a four-year college. She explained, "I wanna go to school now before I lose the desire." She had arranged an admissions interview for herself at New York University in addition to considering City University campuses.

Why did Evelyn drop out of the business magnet? The interview suggested that she was angry and impatient with the school, frustrated by her inability to keep up with the workload. Counseling could have been crucial for a student like Evelyn, a young African-American woman from a single-parent family in a ghetto neighborhood. She wanted to enter the new school's culture but did not have the social skills or academic preparation to succeed. In the interview, she admitted that she regretted leaving the business magnet:

> I learned my lesson. If I had it to do over, I don't think I would cut. I had fun in my cutting days; but if I had known I was going to get my GED, I probably wouldn't have done it. I think the business magnet is a very good school. I wish I would have stayed there. But I don't really think I'm messed up. I messed up, but I don't think I'm messed up.

Nick

Nick dropped out of the communications magnet in favor of a GED program, which he finished. He was bored while attending the communications magnet, dropped out, and began working as a plumber because he had many personal contacts in the local plumbing business. He planned to continue working in order to "get my own place" and doubted that he would go to college. "I might go to college in two or three years . . . maybe," he explained.

Yvette

Yvette, a junior, was another student who dropped out of the business magnet. Yvette's guidance counselor did not have an answer to our queries about her four-month absence from school. We learned about Yvette from a telephone conversation with her grandmother, who announced joyfully that Yvette was having a baby. Although we cannot hold the school responsible for Yvette's personal life, it is striking that her counselor did not know why she had been chronically absent from classes for four months. Yvette said that she had an office job and wanted to transfer to a neighborhood high school that had a day-care program. She planned to enroll in a neighborhood comprehensive high school the following autumn after completing her transfer from the business magnet. After high school, Yvette was considering college in a southern state where some of her relatives lived.

Career Magnet Versus Comprehensive High Schools

In comparing lottery winners who stayed in the career magnets with students who stayed at the neighborhood comprehensive high schools, we found that the lottery winners developed more confidence in their ability to enter the job market and more varied, sophisticated plans for the future. The interviews suggested that the comprehensive high school reduced and/or limited the aspirations of many disadvantaged students.

It is important to note that *our interview sample is biased in favor of the comprehensive high schools*. Although we sampled dropouts from the career magnets, we were unable to sample dropouts from the comprehensive high schools because of confidentiality decisions made by the Board of Education. But there is a high dropout rate from comprehensive high schools (New York City Board of Education, 1990). These students are usually classified as examples of the comprehensive high school's failures. In fact, critics have frequently argued that many of the students who do graduate from comprehensive high schools should be considered failures as well. The problem of educating disadvantaged students has stimulated a range of explanations and possible solutions. Stinchcombe (1964) has described the inability of the school to create a contract with students, a contract in which the students give their attention in exchange for a relevant education. Similarly, Schofield (1982) observed that school adults focus on academics "first, last, and always" and miss the affective side of student problems. The students seem to be saying that for them the school is too impersonal with too little individual contact between school adults and students but also that more personal contact alone will not keep students in school if the conventional academic curriculum remains in place. Finally, the typical New York City high school is very large. Large schools work badly for disadvantaged students. The following student profile elucidates the ways in which a large comprehensive high school can fail a disadvantaged student.

Willie

Willie is a serious, well-behaved, young African-American man whose interests and talents have been ignored by his high school. Although he attended school regularly, his grades and his reading scores were below average. He came from a low-income, single-parent household and would thus be considered an at-risk student. At the end of junior high school, Willie applied to several vocationally-oriented programs, including one total magnet school, but was not accepted into any of those that he preferred. He decided to go to his neighborhood school, consoling himself that it might be convenient to attend school close to home.

When we interviewed Willie, he was a senior, eighteen years old, and expected to graduate from high school at the end of the school year. While he had some vague career aspirations, he did not connect high school with his work future, so the interviewers probed for information about Willie's relationship with his guidance counselor. They learned of a poignant miscommunication between Willie and his counselor. The miscommunication was not the result of a lack of effort on the part of either the student or the counselor, for Willie told us that he spoke with his guidance counselor often, perhaps once every two or three weeks. The frequency of his visits suggested a positive relationship; in contrast, many other students reported seeing their counselors once a semester. Another positive signal was Willie's general feeling toward his counselor:

Interviewer: Would you say . . . [the counselor] is helpful?

Willie: Yeah, he helpin' me cause he told me that if I really want a scholarship, I better pass my classes. . . . He be helpin' me.

Interviewer: When you're done with school, what kind of job would you want then?

Willie: Accountant, 'cause I like that stuff. If not, I would like to be an interpreter 'cause I know how to sign.

Interviewer: How did you learn that?

Willie: Because my mom she can't speak. So I guess she was born like that, so my brothers and me learned how to do sign language, so either way I have something to back me up. They said that be that if things don't work out, I could always go to that.

Interviewer: That's a good skill. How many people know that you can sign? Does the school, for example, know that you have that?

Willie: I think one or two people who met my mom, the friends that live around my way that go to school, they know.

The conversation quoted above illustrates that Willie did have aspirations but that his conversations with the guidance counselor did not help him connect his skills or his fantasies with his life in school. The school failed to help Willie make those connections. He knew very little about how to apply for jobs and even less about training for jobs in accounting, the field in which he said he was most interested. For instance, he did not understand the requirements for becoming a Certified Public Accountant. Although he vaguely knew that signing was a valuable skill, he had no knowledge of who might employ him in that field. As a senior in high school, Willie needed to know this and other information about training for future jobs. Unfortunately, counselors and teachers often assume that students like Willie know more than they really do know about jobs and careers. These school adults miss opportunities to help because they fail to recognize that such students lack crucial information that most middle-class students and adults take for granted.

This lack of knowledge is a serious problem for many low-income and minority students. Such students often lack knowledge not only about jobs and careers but also about how to use their skills and interests to obtain satisfying jobs. Some students in the interview sample needed to build confidence in their own abilities rather than perpetuate the low self-confidence and low expectations of their families and peers.

In summary, the interviews paint a picture of the career magnets being able to do things that comprehensive schools cannot do: They can provide the hope that comes from envisioning a career and from a new set of career-oriented adults and peers to reinforce those hopes. At the same time, the career magnets are academically tougher and lose too many of the weaker students along the way. In addition, the career magnets share with the comprehensive schools the problem of too few counselors.

ETHICS IN WORK AND LOVE

Amy Heebner

This section employs student interviews in exploring the ways in which adolescents expressed attitudes toward a "work ethic" and the way attitudes toward work were affected by attitudes toward marriage and family. The students' patterns of combining work and love differed according to gender. Most females in the student interview study planned to postpone marriage and childbearing until after they had established careers. This represents a departure from the study by Douvan and Adelson (1966), in which young women were found to have vague career aspirations that were subordinate to their goals for marriage and family. There were more varied patterns among male students in our study. Some males who hovered on the brink of delinquency became serious about work at the same time that they became serious about a girlfriend. For these young men, an important relationship catalyzed a change in direction toward a productive adult life.

Many low-income and minority males and females changed their attitudes toward work during their attendance at a magnet high school. Much of the schools' influence on student attitudes was indirect, although the magnet schools occasionally addressed the development of a work ethic directly in classes or assemblies. The simple fact that these magnet high schools are organized around occupations seemed to create an indirect pressure on students to consider their future work plans. Like most American high schools, these magnet schools require many of the same competencies—such as regular attendance, commitment to tasks, and the ability to work in groups—that are required by the American workplace. The traditional American high school, however, is not designed to teach these basic competencies to students who do not already possess them. Instead, the traditional comprehensive high school assumes that students will attend regularly; communicate well with adults; and avoid cheating, stealing, and fighting. But some students from economically and educationally disadvantaged families lack these and other skills that are necessary for success in school as well as in the workplace.

Increasingly, experts argue that American schools must assume more responsibility for values education (Higbee, 1990; Lewis, 1990). This report is not the place to debate the question of whether American schools *should* be responsible for values education. The student interviews suggest that values education is already taking place both directly and indirectly in these magnet high schools. Instead, this report (1) describes the students' views of ethics as revealed in ethnographic interviews (below) and (2) suggests implications for career education (discussed in the conclusion). Interviews with students and school adults suggested that much more *could* be done to create, strengthen, and refine positive work attitudes and generic work skills in these high schools.

Descriptions

Each of the seventy students in the sample told a story of values growth or values decay. Most had dreamed of a better life and had made some attempt to find role models to point the way. For some students, this search was confused or half-hearted or was interrupted by circumstances such as a pregnancy. For other students, the disadvantages posed by their family and neighborhood situations seemed to spur them to persist until they found something better for themselves. Enrice, Carl, Marixa, and Erika, the four students profiled below (and who also appeared in the previous section), represent success stories. Each was an "at-risk" student. Each applied to a total magnet high school and was admitted by lottery, not through school selection. Each pointed his or her life in a more positive direction during high school. These students were chosen from the interview sample to illustrate key elements of the students' ethics in work and love and to show how the magnet high school enhanced or did not enhance students' values growth. The stories of other students could be told here, stories of mixed success and failure in school. All the student interviews contributed to the interviewers' observation that values conflict and growth were important in the lives of these young people. The views of all student interviewees are summarized in the section entitled "Elements of a Work Ethic."

The Magnet as a Setting for a New Peer Group

It seems likely that the movement from a neighborhood middle school to a magnet school would create a more positive peer group environment for students, even if the career magnet did not contain a number of well-behaved students hand-picked by the school. We see two reasons for this. First, whether the students in the career magnets are better than average or not, they still have a particular career interest in common. Such a situation enables them to interact in the context of a common topic of their future rather than some topic of adolescent interest—whether a safe subject such as music or a dangerous subject such as adolescent rebellion. This means that the peer group status structure could be altered: The student who is most knowledgeable about future work opportunities would have more power, while the student who might normally dominate a peer group through aggressiveness or willingness to act the shared needs for adolescent rebellion might have to take a back seat. To some degree, this change in peer structure takes place in any magnet school simply because the school brings together students from different neighborhoods who have not met before. In the comprehensive high school serving a single neighborhood, students come with their middle school friends and tend to keep the middle school status structure, dominated by power relationships based on the values and norms of early adolescence. In the magnet school, new norms are established by new peer groups. New decisions about who should be looked up to are made based on these new norms which reflect the somewhat greater maturity of high school students rather than the relative immaturity of middle school students.

Erika

Even for students who do not choose a new peer group from their fellow magnet school peers, the magnet setting allows those students to more easily disassociate themselves from their neighborhood friends. Erika (described in the preceding chapter) presented herself as a solid student, hard-working and well-organized, who held a key position in her Puerto Rican family and enjoyed a large network of peers from the Jehovah's Witnesses. Erika was the most striking example we found of a student embodying the traditional values associated with the work ethic. At first, her school persona seemed to be that of a "goody two shoes." But as we came to know her better, it became apparent that she *chose* to embrace these values—however traditional they might be—based on her experience with the alternatives: cutting class, avoiding school work, and experiencing family problems in Puerto Rico. She described her current view of other students who neglect school work:

> Most of the people who cut classes, they cut class to go with their friends to just hang around. They think they're cool, doing that. "Oh, I cut classes" and this and that. It's like—they say, "Yeah, you cut class? Well, I cut class, too." You know, making themselves like big shots, popular people, by cutting classes even though it's not right at all. So they just do that to get friendship, to get more people close to them. Many of them come to their teachers saying, "Oh, you gave me this grade," and then they start arguing with their teachers. They are responsible for having that low grade. So they think they can have anything in handy, just like that. They think they're kings and queens and can get their high grades just for doing nothing.

Erika's comments illustrated her belief that bad grades were the result of a lack of effort. She accepted the notion that effort in school yields rewards, a fundamental premise that schools want students to accept.

One of Erika's special gifts was her ability to support relationships between people. She showed this in the first interview, which was conducted with two other students. Erika was outspoken within the group, answering the interview questions candidly and warming up the other, less talkative students. Then, as the others began to talk more freely about themselves, Erika sat back, satisfied to listen as well as to talk. Later, she described herself as the "problem-solver" in her family. For instance, she reported that during the renovation of her family's apartment, her parents were quarreling over the location of a new closet. While her mother wanted to put the closet in the living room, her father wanted to put it in the kitchen. Erika declared, "Okay, no more arguments! Put it in the bedroom."

Erika's calmness and balance have not come easily to her. Her earlier school record foretold trouble, not success. At nine years old she was cutting classes to hang out with friends in the hallways and in video arcades. She attributed this partly to the poor quality of schools in Puerto Rico, where the teachers paid little attention to students, making it easy to cut class. Her family moved to Puerto Rico in response to persuasion from in-laws. The move was supposed to provide Erika's family with a better life, but instead, the father lost his job as a plumber and began drinking. Erika reported that she was not doing well in school, cutting classes and hanging out with friends. The father's downward spiral continued, and Erika's mother threatened to get a divorce. The father did not want to divorce. In an effort to save the marriage and the family, they returned to New York, where the father resumed his work as a plumber. The marriage was indeed salvaged, and Erika reformed. She attended class regularly, began thinking seriously about the future, applied to the communications magnet, and was admitted by lottery.

Another important influence during Erika's high school years was her involvement in the Jehovah's Witnesses. Although her mother had urged her to join the Jehovah's Witnesses, Erika resisted for many years, feeling that the young people in the church were not having as much fun as other young people her age. But soon after she began attending the communications magnet, she decided to join the Jehovah's Witnesses. "I saw that it was the true religion and that I should be hearing God," she explained. From the time she made her decision to join the Jehovah's Witnesses, Erika cultivated a large network of friends, both local and international, who were also Witnesses. She estimated that she had "more than one hundred" friends who were Witnesses. Erika also led Bible studies with her family and participated regularly in services and Bible studies in the local congregation. Erika planned to preach for the Jehovah's Witnesses, in addition to finding a job, when she finished high school. She had decided against college, for she wanted to begin earning money and contributing to her family's income. Although she seems interested in office work using computers (in fact, this interest was her main motive for applying to the communications magnet), she did not have ambitions to progress into a more specialized occupation (like computer programming) that would require more education. Thus, she had attempted in her plans for the future to balance her own ambitions with the needs of her family and her religious calling.

Erika was the only student interviewee to discuss "morality" in her life without prompting from the interviewer. In her discussion of the Jehovah's Witnesses she said, "All of the association we have together is moral. Nothing is immoral between us because we have high moral standards." Erika's speech and behavior suggested that she had internalized a set of values (with the external support of the Jehovah's Witnesses) that allowed her to adapt successfully to high school.

While there is no reason to believe that Communications High School prompted Erika to become an active Witness, the environment there was more supportive of her religious involvement and her moral posture than a comprehensive high school would be. The students were better behaved, "did not hang out" at school, and were more future-oriented and, hence, were less likely to create a student culture in conflict with Erika's religion.

Enrice

We described Enrice's Cinderella story in the previous section. An Hispanic from a low-income family, he had a history of delinquency that included spotty school attendance, regular activity as a graffiti artist, a robbery, and a subsequent prison experience. He recently made two important decisions that catalyzed a dramatic turnaround, however: first, a decision to finish high school in order to join the Marines and, second, a decision to marry Barb, his girlfriend, who had a steadying influence on him.

"Getting caught" is the cardinal sin in Enrice's world. He took pride in cutting classes with his friend Jerry, slipping in and out of class without detection. He claimed that he went to class regularly when he began high school, but when a letter was sent home unjustly accusing him of cutting class, he decided to do just that of which he had been accused. He claimed that later he let the school authorities catch him and then gave them the telephone number of his aunt, who "doesn't care. She just came to shut these people up." In his interview, Enrice made it clear that getting caught was an embarrassment and a source of shame among his male colleagues. "I never get caught—unless I want to, you know." Getting caught was okay if the boys did it together, however. For instance, Enrice told of a time when Jerry got caught and another friend also got caught. "So then I got myself caught," Enrice said. Then he told a guard to take him downstairs to the dean's office.

This is an example of how Enrice tested the limits of acceptable behavior in school. In his pursuit of adventure he had tested other limits, coming dangerously close to injury and death. Writing graffiti on public subway trains has been Enrice's main passion, the center of his social life. He travelled with his friends (fellow "writers") to the subway yards during the night and early morning hours. Enrice had authority over a "boy" who worked for him and had a high degree of autonomy—for example, he recently changed his name to avoid attacks from enemy "writers":

> Enrice: I changed my name. I write "Anansi" now.
>
> Interviewer: I'll look for it.
>
> Enrice: Because too many people know me. My boy changed his name, too. He used to write "Cordoba," but now he writes "Toro."

"Writing" entails the threat of enemy gangs and the possibility of death on the subway tracks. Enrice and his buddies dodged the first danger by applying to a communications magnet high school, knowing that their enemies were going to attend the zoned comprehensive high school. But two friends died recently on the subway tracks while doing their graffiti handiwork. Enrice described his friend Reuben's death, which changed his mind about walking on subway tracks:

> The train came through the tunnel. There's like a arrow, like a corner, like the edge of this desk. Reuben was right there, and then the train can't see the light until it gets around here. And he had nowhere to go.

Enrice also experienced a week in prison as a result of an incident in which he and his pal Jerry stole sneakers while carrying a gun. They were immediately caught and incarcerated with bail set at $1,000. Enrice became involved in fights with the inmates, working his way up through the newcomers toward the old-timers, but was bailed out of prison after one week. The interviewer was unclear about whether Enrice left prison (or jail) as a result of bail—implying a later trial—or for some other reason. Enrice's discussion of the incident was colored with bravado, as evidenced in the transcript excerpt below. But his survival interest was evidenced by his decision to refuse tattoo needles because he suspected that they might carry the HIV virus:

> Enrice: As soon as I walked into the prison, they handed me my sheets and my blanket rolled up and a toothbrush. I had a fight every day, every night, every minute.
>
> Interviewer: What kinds of fights?
>
> Enrice: They used to pull out razors on me. And I met this other Puerto Rican guy, and he showed me how to sharpen up my toothbrush as a weapon. And so I sharpened it up. I used to have it in my pocket and walk around with it. If anybody should come up to you. . . . When I walked in, I was hoping the biggest guy would start with me. If they see me fighting with the biggest guy, I'd keep coming back. . . .
>
> Interviewer: Did you do it?
>
> Enrice: No, because I got bailed out. . . . They wanted to give me a tattoo and everything.
>
> Interviewer: Who was going to give you a tattoo?
>
> Enrice: The guys. But that was messed up because they used the same needle on everyone.
>
> Interviewer: So you didn't do it.
>
> Enrice: They used spit and ashes from cigarettes. They mixed it and made the ink.
>
> Interviewer: Why did you decide not to do it?
>
> Enrice: AIDS.

Enrice's decision to change his life was a decision to move away from dangerous excitement and to move toward a more ordered, conventional world. He tested the limits of the law and saw the consequences of overstepping those limits as well as the results of ignoring the physical dangers of the subway tracks. His decision was also a move toward a new world, catalyzed by encounters with two key people—a Marine recruiter and his wife-to-be Barb. Enrice met both people through the high school. His life-changing decision illustrates themes we have seen in other cases, as well: (1) the need for structure, (2) the importance of an adult role model from school or another sector of the outside world, and (3) the positive influence of an important love relationship.

The Need for Structure

Enrice's comments about his decision to join the Marines emphasized two of the decision's main benefits—money and discipline. It came as no surprise that Enrice, being from a low-income Hispanic family, felt the need to "get paid." But his interest in discipline was surprising. His comments suggested that school was too soft, that he knew he needed a firmer kind of discipline to control himself. He discussed his preference for the Marines over college:

> Because in college, I guess it's almost the same thing like high school. If you cut. . . . But in the Marines, you can't cut. Right? . . . They're going to wake me up, you know?

Enrice felt that he needed the total discipline and involvement that the Marines offer. He respected the Marine recruiter, although he did not report any positive relationships with other adults at school. The Marine recruiter changed Enrice's life by presenting a positive male image that included discipline, strength, and an acceptance of certain aspects of conventional morality. Thus, Enrice's story exemplifies the "search for structure" that Ianni (1989) identifies as exemplifying the condition of contemporary American youth.

Positive Influence of Female Peers

Another important positive influence in Enrice's life was Barb, whom he planned to marry. This relationship seemed to help Enrice stop himself from sliding further into delinquency. In part, Barb's positive influence involved separating Enrice from his male peer group and its values. Although Enrice spoke affectionately of his friends, the incidents of cutting class and stealing he described were a thing of the past. He knew that his future was with the Marines and spoke energetically about his plans. Some of his friends also planned to join the Marines. Enrice's decision to join the Marines was based on his need for money and structure, however, not on his friends' plans.

Carl

Carl, a junior at the business magnet, is a West Indian whose parents have lived in the United States for ten years. He definitely planned to go to college and thought that he would probably want to work in business after college. He liked the construction business but thought it wise to keep an open mind until he got his college diploma, knowing that the business market might change by the time he would be ready to enter it. Carl's attitudes and his life plan seemed realistic and positive. But his past indicated that he, too, had turned his life around. He, too, could have become a delinquent. He had a history of cutting class and fighting with peers and of poor grades. When he applied for high schools, he applied to the business magnet because he wanted to go to college and work in business someday and because his sister attended that school. By the luck of the draw he was admitted to the high school of his choice. After his admission he gradually turned his life around without much fanfare.

The positive change in Carl's life coincided with a change in his social life, a change that involved spending less time with a group of male peers and spending more time with girls—particularly one special girlfriend. Carl described Keisha as his girlfriend and spoke of her with great interest and respect. Carl met her near a high school (not the one he attended); her pressure prompted him to retreat from a fight with a boy. Carl and Keisha were seeing each other regularly. Carl said he did not think that he would marry her even though he thought very highly of her. They had discussed the need for equality between them and assumed that marriage would decrease her chances of getting a college degree and of becoming Carl's equal, educationally and economically.

Interviewer:	Have you thought about maybe getting married?
Carl:	Oh, marriage. Marriage. That's funny. I don't know, I think about it a lot because I have this girl I really like. She might be the one I just marry. I call a lot. But not right now, nah. For both of us, not now. She has too much she wants to do. I can't say let's get married without her accomplishing anything. Because just like she says, for me to have a wife, she has to keep up with me. If I do something good, there's no reason why she can't do something good. Whatever my standards are, hers can't be lower. We neck and neck. She wants to be a nurse. I just want to make money.

Keisha had affected Carl in at least two ways: (1) She had pulled him away from fighting and cutting class, activities associated with male peers; and (2) she presented herself as a woman who wanted to be an equal partner. Keisha was part of Carl's move away from his male peer group, with whom he used to get into fights and cut classes. After Carl met Keisha, Keisha occupied his time. Also, Carl explained that he did not want a lot of male friends because they would want Keisha. He explained,

> A lot of people want to kill me for her, literally kill me. Serious. I don't know why. Just jealousy. That's why I don't really want too much friends. Too much friends, a lot of trouble, a lot of trouble.

Keisha made it clear that she intended to have a career of her own, and Carl accepted her position. He accepted that she was interested only in a partnership of equals. With these comments and others, Carl made it clear that he would probably like to be married and have children someday, although he did not have such plans for the immediate future. Carl's West Indian parents had been in the United States for ten years. Some of his uncles had fathered children outside of marriage. When asked if he would have children without being married, Carl said that he did not want to. He envisioned marriage as a partnership of equals and a suitable place for children.

Carl was remarkably adaptable—able to socialize well with peers, parents, and school adults. His description of school emphasized school adults more than peers. He had an eye on management, a good strategy for upward mobility. His closest peers, including his girlfriend, went to another high school. Carl was not intimidated by school adults, but he made efforts to communicate with them as long as there was mutual respect.

We were struck by the fact that Carl, like many of the other male interviewees, disliked high school. The environment had no intrinsic interest for him. He would prefer to do construction work or fight or hang out with girls. College, like high school, was another hoop to jump through—another requirement, from his point of view. College was desirable because other people and institutions valued it; college was like a union card. His ideas about college were vague in comparison to his ideas about what he would do after college. For students like Carl, high school and college offer a cultural environment to be mastered as much as they offer useful skills. Carl wanted to pass those cultural hurdles. He had developed considerable social skill for his age and seemed to be confident of his social abilities. The potential problem for someone like Carl involves his values. Is personal integrity useful in getting ahead and moving up in the world?

Marixa

The temptation of deviance is not as strong for females as males, but it is present nonetheless. However, the schools' career focus can sometimes redirect this tendency. The communications magnet seemed to be a rich enough environment to give Marixa the strength to become more disciplined.

For many students, there is an invisible Maginot line between the present and the future, as if tanks and cannons wait to destroy students' cherished hopes. Some cannot imagine a future, let alone take steps to realize it. Other students imagine a life after high school, even though they may not believe that they can achieve it; and they creep toward the imagined goal despite their fears. Marixa is one of these students. A sensitive, pretty Hispanic girl, Marixa tested in the above-grade category in reading in the tenth grade; but her GPA was in the seventies, and she had a history of cutting class. She would, therefore, be classified as an at-risk student. During our first interview, she was withdrawn from the group conversation. She later came to an individual interview with a kind of expectancy and with much more openness. We talked about her struggle to succeed in school and believe in a future for herself. She opened the interview by telling of an article about racial conflict that she was writing for the school newspaper. The article was precipitated by an incident in which someone (perhaps a student, perhaps not) wrote racist graffiti on the exterior of the school. Marixa interviewed the school principal, who wanted to keep the incident quiet, but Marixa disagreed with the principal's approach. The article reflected a step toward one of Marixa's fantasies of becoming a journalist. In the first interview, she indicated that she liked writing and that English was her favorite course. The school paper article was the first indication that she was trying to write in a journalistic way. The second interview reflected her tentative fantasies about a career future:

> Interviewer: Do you want a job where you think you will have to do a lot of writing?
>
> Marixa: No. Once I start to write, I like it, but I just have a hard time getting started. I'm lazy.
>
> Interviewer: What kind of skills do you have now that you will be able to use in a job?
>
> Marixa: I don't think any. (laughs)
>
> Interviewer: What about other skills that you could develop later?

Marixa: I don't really know what I want to do. I think I probably want to be around people, not really talking to them. I can't explain. Maybe a job that has to do with feelings, like a psychiatrist or something.

Here, Marixa expresses a second career fantasy, that of becoming a psychiatrist or a counselor. In addition, she mentioned the possibility of being a teacher. The fact that Marixa had fantasies about what she wanted to do for a living when she got out of school is very positive. Marixa's case is hopeful because she had career images for herself, but she had taken only tentative steps toward those imagined futures. Her counselor had told her that her weak grades would require her to start in a community college rather than go to a four-year school, a disappointment to her and her parents. As Marixa said later in the same interview, "This is a bad attitude, but I just want to go where somebody will take me."

Her parents had been supportive but had not offered strong career direction, perhaps because of their own career experiences. Her father had two years of college, and her mother had one year. Her mother had not been working for some years, while her father managed insurance matters at a hospital. Marixa tended to underestimate herself not only in terms of her college prospects, but also in her choice of high schools. She said that when she was accepted at Communications High School, "I was happy. I really didn't think I would be able to get into a [magnet] high school. My grades weren't so hot." Communications was, she said, "my first choice and my only choice." Similarly, she seemed to feel that she would have only one opportunity (Kingsborough Community College) to enter college.

Marixa tended to focus on only one possibility without contingency plans—except in the area of career aspirations, in which her views on her future were more differentiated. She discussed journalism, psychiatry, and teaching as possible career avenues. There were two other indications of commitment to schooling and future: her clear decision to go to college and her recognition of the importance of "getting my degree." However, it would not be a Regents degree. She recognized the value of a Regents degree but did not seem to want to make the effort to complete one. In reference to a Regents and other degrees, Marixa said, "Everyone feels it doesn't make a difference which one you get. . . . I don't know, it sort of seems the easy way out, not getting a Regents degree."

Taking the easy way out is a temptation at many decision points. What factors could prevent Marixa from finishing high school and moving toward her imagined future? One factor was her attitude toward school:

> Interviewer: Do you like school?
>
> Marixa: When I'm in a good mood.
>
> Interviewer: How does that help?
>
> Marixa: I don't know—I guess I pay attention more because I want to be there.
>
> Interviewer: What do they do to make you want to be there?
>
> Marixa: I don't think it has anything to do with what they do to make me want to be there. I have to want to be there myself.
>
> Interviewer: Would you say that you like school or you dislike it most of the time?
>
> Marixa: I think you know my answer. Most of the time I don't like school.

She was clear, and probably correct, in saying she would not be able to discipline herself unless she found something to like about her school. Communications High School, with its journalism emphasis, was giving her one thing to like.

In Marixa's last year in middle school, she cut classes up to three days a week with Ellen, a good friend. Often the girls went to Ellen's house while they were avoiding school. In explanation, Marixa offered, "This is the way it felt. They weren't really teaching us anything that we were interested in." Ellen cut more often than Marixa and continued to cut more consistently (by Marixa's report), probably because she had family problems, including a brother on drugs. Also, Ellen found that when she tried to attend high school regularly after long absences, many of the students "picked on her" and made her feel that she was less intelligent than they were. Ellen continued to experience difficulty succeeding in school, so she recently enrolled in a boarding school in Massachusetts. Marixa, however, turned herself around after her admission to Communications; she attended regularly, and her grades were better than those of her friends from the old neighborhood. She was proud of her grades and did not mind a little jealousy from her friends, who did not feel so good about their grades in comparison with Marixa.

Elements of a Work Ethic

For young people like Erika, Enrice, Carl, and Marixa, the school represents a set of foreign values, values with which they must come to terms if they are to complete schooling and enter the workplace successfully. This section summarizes the views of students regarding work values, giving particular attention to gender differences. The strongest finding from the student interviews was that the girls accepted the necessity to defer the gratifications of marriage and family in order to achieve economic independence. When questioned about plans for marriage and family, every female respondent who was still enrolled in school replied that she wanted to defer marriage and children until she had completed high school (and college, for college-bound students) and established herself in a job. This finding suggests that today's young women are more career minded than their counterparts in the sixties (Douvan & Adelson, 1966) and that today's young men are influenced by the career attitudes of their female peers.

The female students who had dropped out of the magnet high schools fared less well than those who had stayed in school. One young woman stopped going to school because she was pregnant. She said that she planned to return to her neighborhood high school (which had a day-care program) not to the magnet school (which did not provide child care). The other female dropouts had plans for the future that included finishing high school or a GED and getting a job. Their efforts to realize these ambitions were often blocked, however, by the needs of their families, their own lack of information and role models, or their own anger.

All the boys in the sample saw the necessity of money. Some also thought of working in terms of (usually glamorous) careers, but others thought of having a job only in terms of money. Boys, more than girls, seemed vulnerable to the world of crime and drugs because they wanted fast money, not the slow money offered by low-paying, entry-level jobs. Girls from low-income families seemed generally more disciplined and better equipped to defer gratification than boys from similar families. While most girls were willing to accept low starting salaries as long as they could see brighter possibilities in the future, the boys felt a greater need for control and power. For example, in Enrice's world of graffiti writers it was acceptable to draw graffiti on public property, to steal, and to use knives and guns—as long as no one "got caught." The ability to take risks without "getting caught" was a measure of maleness. These boys experienced a particular kind of moral dilemma. If they were honest and cooperative, they were not considered men in the ghetto peer groups in which they grew up. Yet if they tried to function in the worlds of school and work without conventional values, including honesty and commitment, they would be crushed by authority figures.

The boys disliked school more than the girls, perhaps because the boys were more concerned about money, a subject discussed by most of the male interviewees. Girls spoke more often of jobs, implying an interest in more aspects of work than simply money. For students from low-income backgrounds, money was the most important difference between school and work. These students did not have the luxury of deferring paid work in favor of advanced schooling and internships that promised an enhanced professional network and better pay in the long run. As Bishop (1991) has pointed out, the disconnection between school and rewards in the workplace leads to decreased motivation among students, especially low-income students. Many low-income students planned to stop formal schooling after they received their high school diplomas and got jobs. Those who planned to attend college recognized that they either must hold jobs to feed themselves or pray for the miracle of a full scholarship.

A Conflict in Values Systems

While some students found it difficult to defer financial and other rewards while they attended high school, other students accepted the school's rules of the game and adapted successfully to the magnet high schools. For students who did not adapt successfully to high school, the interviews suggested that a conflict in values systems seemed to be a fundamental problem. Certainly students from low-income or troubled families seemed to struggle with values, but at least some of the middle-class students we interviewed were also affected by value conflicts. The interviews showed that many students did not accept certain values that went unquestioned by their parents' generation. These values are as follows:

1. Commitment
2. Honesty
3. Sexual Responsibility

Commitment

In former generations, commitment-related values were taken for granted in America, but now teachers and employers cannot assume that young people value commitment in the same way.

Other investigators have recognized the importance of commitment in the workplace and in education (Levin & Rumberger, 1989; Stasz, 1988). For example, Levin and Rumberger (1989) list "commitment" as a basic work "skill" in a taxonomy that was developed from case studies of workers (mainly in factories) who were not managers.

Honesty

Honesty, too, can be taught as a value and a habit to students like Enrice. Enrice was accustomed to illicit graffiti adventures and had been convicted for robbery. The offense (stealing a pair of sneakers) seemed relatively insignificant until he admitted that he had been carrying a gun. This breach of conventional conduct contrasted sharply with his candor in the interview. He told the bald truth about all of his adventures, including the incident with the gun and his time in prison. His naive honesty in face-to-face interactions may have been his saving grace with authority figures such as the Marine recruiter.

Sexual Responsibility

"Sexual responsibility is more important than drugs" in counseling students, according to one guidance counselor. Another counselor, who was also a Ph.D. and a certified gym teacher, taught a regular "health" class in which frank discussions of sex were encouraged among boys and girls. These two counselors, both female, emphasized the importance of working with boys as well as girls in teaching sexual responsibility. The other counselors interviewed were either completely dismayed by the issue of sexual responsibility or dismissed it as outside of their professional purview. The consequences of this neglect were appalling. For example, a male counselor did not know that one of the female students in his caseload had been absent from school for four months because she was pregnant. In an interview, this counselor admitted that he was too embarrassed to discuss sexual matters with a female student. He, like twenty-two of the twenty-four guidance counselors interviewed, did not believe that teaching sexual responsibility was part of his job. This finding raises troubling questions about the training of counselors and relates to the previous section's concern with ineffective and/or inadequate counseling services in the high schools studied here.

The Place of Ethics in Career Education

From the illustrations provided above, it is clear that ethics in both work and love affect whether or not a student will reap the full benefits of attending a career magnet. In the cases of students such as Enrice and Carl, the development of personal relationships with females positively affected the development of career-minded traits such as stability; and in other cases, such as that of Erika, the positive values held by students made successful adaptation to the career magnet environment possible. While it may seem problematic that the success or failure of the career magnets relied so much on the students' personal relations and attitudes, the career magnets did affect these students both indirectly and directly, providing the structure in which ethics and career education could grow. In fact, as will be argued in the next section, school adults play an integral role in the ethical lessons experienced by students in the career magnets.

Implications

We believe that the career magnet provides a favorable setting for the learning of ethics. By helping students gain a clearer and more hopeful picture of their futures, the school creates a climate in which thinking about the future leads naturally to making decisions about ethical choices. But many students need more than a merely favorable climate. Disadvantaged students may need more information than other students. They need information about jobs, about the work ethic, and about contraception. Information alone, however, is not enough to help all of these students construct productive futures for themselves. Some of them also need to learn about the basic values of the society they live in, values that many school adults take for granted. It is clear from this study that the students' data for moral decisions came from observing the people around them. For example, two West Indian males (including Carl) said that they did not want to have children outside of marriage because they saw the problems created when relatives made that choice. If it is true that values are best imparted through personal relationships, what more can the schools do to provide positive role models for students?

One route to take may be to increase counselors' time with students. This is the only place in the public school setting that sanctions intensive, one-to-one interactions or unstructured, group discussions between students and adults. All counselors interviewed (a total of twenty-four at four different schools) said that the schools needed to provide more time for counselor-student interaction. All counselors interviewed emphasized the need to reduce their paperwork in order to free more time for working directly with students, both individually and in groups. However, more time with counselors who refuse to discuss sexual responsibility is of limited value to students. *The* quality *of counseling should be improved through inservice education at the same time that the* quantity *of time with students is increased if disadvantaged students are to be helped.*

School adults had a positive effect on young people in the sample in both direct and indirect ways. Through discussions and field trips, adults offered a glimpse of other worlds with greater opportunities than the students' home neighborhoods. Some adults spent after-school hours talking with individual students. Concerned teachers sometimes served as sounding boards for troubled students. Teaching by example is the most effective way to teach honesty according to Mr. Miller, the Coordinator of Student Activities at one total magnet site. Mr. Miller, a African-American male recently graduated from college, has a close relationship with many students at his school.

> The only way to teach honesty is by example. . . . I always have to set an example because I never know if the young people are around. And I agonize because I feel like I, you know, give the word but I have to live the words. And they see everything that you do, every single thing. They watch you. And they listen to every word that you say.

If we take remarks like these seriously, perhaps counselors and teachers who work with a multicultural student body should be prepared for the responsibility of teaching values. If this is so, then some form of values education should be part of both inservice and preservice education for counselors and teachers to allow these high schools to better serve their disadvantaged students.

DISCUSSION OF INTERVIEWS WITH SCHOOL ADULTS

Amy Heebner and David R. Kiefer

Interviews with sixty-two school adults at the four target sites suggested some important ways in which career education contributed to these magnet high schools' effectiveness. The focus on career in addition to college preparation contributed to a more positive faculty morale than that in comprehensive high schools. We found, as did a study by Hill (1990), that magnet schools (which are one kind of "focus school" in Hill's study) gained cohesiveness by emphasizing a single purpose. This cohesiveness was believed by the school adults to benefit low-income and minority students in particular, as Hill's study (1990) also indicated.

The career magnet programs vary in the extent to which they have a clear focus; a few do not really have a clear career commitment. For example, Crain et al. (1992) found in a telephone survey of the directors of eighty-five of these magnet programs that only seventy percent said that their schools prepared students for specific careers. At the same time, eighty-eight percent said that their magnet students took special classes not offered to other students in their school, so it is clear that magnet programs are providing their students with a high school education that is in some ways unique. Three fourths of the magnets' special classes use specialized equipment, and over half the programs provide computer training. In the telephone interviews the magnet administrators were asked,

> Some schools are experimenting with altering their academic courses to make them more closely related to the students' career interests. However, many educators think that this waters down the academic standards in a course. What is your personal view? Do you think it is generally a good idea or a bad idea to integrate career interests into academic classes?

In response, eighty-three percent felt that integration of academic and career content was a good idea. The programs often also maintained contact with future employers: eighty percent had internship programs, and fifty percent gave release time to faculty working on placing graduates.

In this section, the four target schools are discussed[5] with special attention given to the effects of the lottery (called "random assignment" in New York). The lottery has changed the composition of the student body in these formerly elite magnet high schools by admitting more at-risk students, balancing the tendency of magnet schools to draw the most desirable students (i.e., the able and high-income students) away from zoned high schools, a tendency discussed in other studies of magnet schools (Blank, 1989; Moore & Davenport, 1988). With the following two questions, the telephone interviews asked administrators to give their views on random assignment:

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[5] Minor details have been changed to protect the confidentiality of the schools and the interview respondents.

1. Some school administrators have told us that taking randomly assigned students has seriously hurt the quality of their programs. Others say that it hasn't hurt their program. Do you think your own program has been harmed?

2. Do you think you would have a better program if you were able to select all of your students instead of having to take the randomly assigned students?

In response, eighty-four percent of administrators said that they would have better programs without the lottery students, although only sixty-five percent would go as far as to say their program was harmed by these students' presence.

The two total magnet sites in this study handled the problem of underprepared students in two different ways. The faculty and administration of the business magnet resisted the change in the student constituency, grudgingly offering some remedial courses, but not enough to help all of the underprepared lottery winners. In contrast, the administration of the communications magnet embraced the entire student body. One key policy change was the principal's decision to announce to the whole school that all students had been admitted by lottery. Neither the faculty nor the students at the communications magnet complained about the lottery, while both faculty and school-selected students at the business magnet objected to the lowering of academic standards as a result of admitting underprepared lottery winners. In fairness, it must be noted that the communications magnet opened after the random selection policy went into effect. Thus, this faculty did not have the nostalgia for a pre-lottery "golden age" that the faculty of the business magnet did.

However, the underprepared students (also known as the "at-risk" or "disadvantaged" students) were a problem for the two total magnet schools and for other career magnets studied in the quantitative analysis of these schools (Crain et al., 1992). In the interview sample, the two magnets lost half of their lottery winners to attrition. The statistical analysis earlier in this report suggests that students often transfer to other high schools. Administrators, teachers, and counselors did not agree on the optimal way to meet the needs of the changing student population. Some wanted to change the curriculum to offer more remedial courses and to expand opportunities for students to interact with counselors and other school adults. Some wanted to change the way in which the lottery was conducted. Two magnet school principals suggested that students with below-grade-level reading scores should not be admitted by lottery without the consent of the school. Clearly, the lottery opened the doors of the total magnets to more underprepared students than would have been included in a strictly school-selected student body.

Business Magnet High School

Our examination found the business magnet high school in a difficult transitional phase. The structure of the curriculum was still an impressive blend of vocational and academic education, but the random assignment mandate had created a major conflict that affected the entire school community. In addition, the principal who had built the school into a successful career magnet high school had resigned after more than a decade of leadership. This principal had done a remarkable job of establishing the school's prestige in the eyes of the New York business community, even though the school had few white students (only 7% in 1987). In addition, like all the total magnet schools, the business magnet was expected to operate on the same per-student budget as the comprehensive schools. Teachers and administrators who had worked at the school during this principal's tenure looked back at the pre-random assignment years as the "golden age" of the school. (Even in the "golden age" before the lottery, the schools were required to take their quota of students with low test scores; the difference was that the school was previously able to select all of its students, not just half, as they do with the lottery in place.) The tension was worsened by the fact that the policy change was imposed by the district administration without school staff participation, a practice which could be expected to cause resistance (Berman & McLaughin, 1978). The school's new principal was determined to change the shape of the school to embrace all students, including those who won the lottery.

Career Education

The business magnet's *Parents Handbook* announced three goals for the school:

> The first of these goals is a strong academic education which will enable each student upon graduation to pursue either higher education or meaningful employment, or both. The second is an awareness on the part of each student of the diversity of opportunities available in the business

community of this city and of the knowledge and skills necessary to take advantage of those opportunities. The third is the development of the specific knowledge and skills required for entry into one major area of work in the business community.

The curriculum offered six majors:

1. marketing
2. accounting and finance
3. business communication and office administration
4. information systems technology
5. computing
6. clerical office skills

All the majors required coursework in computer skills and a basic job knowledge course called "Introduction to Occupations." Four of six majors required a core course in business and marketing and a communication course such as "Decision Making," "Human Relations," or "Business English and Communication." The clerical office skills major was organized as a "holding power" or anti-dropout program with reduced course requirements and more time for one-to-one interaction between teacher and student. In addition to course requirements, the school emphasized work experience through a much-publicized internship program and the cooperative education program. The principal said, "Work/study programs [not only here but] in many of the career magnet schools are very important elements in the educational program. They contribute mightily to the atmosphere of the school, even for those students who do not participate directly in them."

A senior administrator indicated that seniors took courses equivalent to business courses offered in community colleges, and he claimed that such courses "are the courses that really make the school fly." Taking these courses left little room for electives, however, and students had difficulty transferring from one major to another. This administrator and many staff members took pride in the well-organized course sequences and placement program, foundations of the school's reputation for excellence in business education. These strong points were emphasized in the school's extensive promotional literature, which included magazine and newspaper articles as well as a case study conducted under another National Center for Research in Vocational Education contract (Mitchell, Russell, & Benson, 1990).

Effects of Random Assignment

Random assignment created a painful squeeze for course time. The former principal said that the random assignment mandate placed him in a difficult situation. He felt obliged to hold remedial (or "repeater") courses for less able students, but the repeater courses interfered with the career education program. Money, student time, and classroom space were all scarce resources. "If I were to set up repeater courses, I would have to cancel other courses," he explained. "I'm a teacher, an English teacher. If a kid can't read, I want to teach him." A student who cannot read cannot learn to take shorthand, he added. Such a student received only one period a day of remediation, and the remaining time was spent in the mainstream. Partly because of random assignment, "We have more kids now who aren't participating fully in the program."

Motivation was another problem. More students were "scraping by," just barely meeting the state's minimum requirements but not the school's more rigorous ones. The former principal summed up his dilemma with a series of questions: Do we (educators) have a moral obligation to give any child a shot at participation in the school? Do we have an obligation to give a student who has an interest the chance to pursue that interest, or do we have an obligation to help a student who has proven ability? Before he left to accept another position, several measures were taken to change the shape of the curriculum to accommodate underprepared lottery winners. The former principal canceled two courses in real estate and insurance in order to create a position for a special dean to oversee student attendance. More remedial courses have been added to the academic program, and the clerical office skills major is a special major for at-risk students.

Faculty opinion was sharply divided with respect to the lottery. The school has many faculty members who are sympathetic to at-risk students and who want to make a place for them at the business magnet. For example, one such teacher said that the school should spend less money on equipment and more on individual counseling for students. There are many other teachers, however, who are opposed to random assignment and the changes it has brought to the school. Although the staff was not informed which students are school-selected and which are admitted by lottery, many teachers falsely assumed that all the low-achieving students were admitted by lottery. The head of the secretarial science program, a veteran teacher at the business magnet, expressed her negative view of random assignment:

> I do not like it. It is posing many problems for us in the building because students who are randomly selected are not prepared to cope with the tough programs here. . . . They are the students who are cutting because we haven't had a chance to look at their attendance records from prior schools and their academic records from prior schools. And unfortunately, they just repeat their patterns here and they become the potential troublemakers. The situation of the last couple of years has become more serious. Not that I wish to be an elitist school, either. Believe me, that's not my goal either. But if the student has not been successful in what I would consider a traditional environment, I don't think putting them into a very specialized environment is to that student's advantage. Instead of trying to help them improve, I think they're getting more frustration apart from the additional frustration they have from life in general. . . . If the random selection would work for the benefit of the students, then it would be fine. If not, then it's not.

This veteran teacher-administrator revealed that, although she opposed random assignment, she did not want to be considered an "elitist." She and many other school adults targeted their attention to the more successful students. The underprepared students, however, would not catch up solely by self-directed effort without special assistance from the school. Some underprepared lottery winners who dropped out of the business magnet, such as Evelyn from page 41, said that the workload was excessive. Both the former principal, who opposed the lottery, and the new principal, who wants to educate *all* the students, proposed the same solution: not to admit by random assignment students with below-grade-level reading test scores. Both principals said that they were willing to accept lottery winners with above-grade-level and on-grade-level reading test scores.

School Effectiveness

The former principal and veteran staff emphasized the school's history of effectiveness as a point of pride. Their pride, however, had been shaken by the lottery, by overcrowding, and by the former principal's resignation. For some faculty, these phenomena were related, although the connections may not be apparent. To the outside observer, the school seems to be holding together. The lottery brought more minorities into the school and hurt the school's image with white parents; but no one suggested that employers were resisting employing the school's graduates despite the school being only seven percent white.

Overcrowding

In 1989, a very large freshman class was erroneously admitted to the business magnet. Overcrowding was a major complaint from teachers, administrators, and counselors at the school during the 1989-1990 academic year when this study was conducted. The business magnet is not a small school; with the oversized freshman class, it became a school that was too big to accommodate the differences among students.

Faculty Morale

Aside from current concerns about overcrowding, faculty morale has always been high, according to three different administrators. Many faculty members had worked in some area of business then chose to take a teaching position at the business magnet because they *wanted* to teach at the school. Their professional interest in business contributed to their continuing interest in teaching at the business magnet. According to an experienced teacher who was head of the secretarial science program,

> We absolutely inform them on what is in the job market. . . . We are very much into what is going on outside and we keep the students informed. That's the way we keep informed also because if we are teaching a software package that's not being requested anymore, we know it's time to change. It keeps the students feeling up-to-date and in demand so that their employability is in demand. . . . Basically we are the role models, we are the business people, we dress accordingly, and we teach them. And of course, we have people coming in from outside, various representatives from different companies.

This teacher believed that setting an example for the students was part of her job as a secretarial science teacher. She did not limit herself to the job of teaching skills within the classroom. Instead, she tried to keep in touch with developments in the business world and brought this knowledge into the world of the classroom. In this sense, she was able to offer students some elements of a professional apprenticeship (Brown et al., 1989). This is also an example of how "contextualized learning" seeps into career magnet classrooms. This approach benefits students, but it also benefits teachers by giving them the opportunity to nourish their own professionalism. Teachers cannot sustain students' interest over the course of a long teaching career without opportunities for enriching their own professional development, as Sarason (1982) stated.

Another perspective on faculty morale was offered by the head of the Computer Science Department, who was also a teacher. He described his teaching colleagues as "excellent" and said that he enjoyed the diversity among the teachers in his department. They began their teaching careers in a variety of subjects and learned about computers during "off hours" as a result of personal interest. Because these teachers were largely self-taught computer experts, they continued to learn about computers, whether their learning was supported by the school or not, he said. Because they took initiative in expanding their expertise, their knowledge was up-to-date.

However, some teachers were concerned about their effectiveness with the new student population, composed of both lottery winners and school-selected students, according to Mr. Miller, the Coordinator of Student Activities. A former classroom teacher, Mr. Miller was very sympathetic to low-income and minority students. When asked to describe faculty morale, he said,

> This faculty . . . wants to be and expects itself to be working with young people, but many times they are discouraged because they don't feel that they have the support that they need or have all the information they need to continue to be effective—because as the years go by, the young people change. The issues change somewhat, the concerns change. So many times you are frustrated because you don't know when the change began. It's just there. . . . The morale is high in that people believe in the profession and they believe in young people. They just need more assistance. They need to be more in touch with the things that are affecting young people. And I don't think we always know. You know, . . . schools are not isolated from the community or from the city or from the world, so all those things that are affecting New York City and that are affecting this country and the world somehow affect these young people, as well. Because they come out of that into the school . . . and because all of this is happening so fast, we sometimes don't know how you can be a positive influence on them. The faculty wants to do a good job, and they still have that enthusiasm. But you don't always know if you are doing the right thing.

According to this and other interviews with school adults, faculty morale was not as strong as in the "golden days" before random assignment. Some experienced teachers resisted changing their methods in order to accommodate underprepared lottery winners. Other teachers felt that teaching underprepared urban students was a special part of their professional mission. While some teachers gave extra time to individual students who needed more attention, the counseling staff of six was expected to carry most of the responsibility for helping underprepared and at-risk students stay in school.

Overworked Counselors

Clearly the counselors were overworked. Each had a caseload that included from five hundred to six hundred students, with the senior counselor handling the largest caseload of six hundred students and the newest counselor handling the smallest caseload of five hundred students. These counselors were handling twice the standard caseload of two hundred fifty students per counselor (which is the case in many of New York City's schools.) Most were classified as "omnibus counselors," which means, according to one counselor interviewed, "We do everything from heavy-duty counseling where there's a very severe problem to programming. You want to know how I view my job? To do it really well, something's gotta go." This counselor said that a good day was a day when a student came in with a serious crisis and she (the counselor) *had* to drop all her paperwork in order to counsel the student. All six counselors said that they had too much paperwork and that the office needed more counselors.

The job of the College Advisor at the business magnet was even more severely overburdened than that of the omnibus counselors. The College Advisor was responsible for assisting all students at the school in selecting colleges and submitting college applications. The job was allocated as a half-time job for one counselor who was expected to serve as the "bilingual Chinese counselor," as well. According to a veteran of the New York City schools who held the College Advisor position,

> I feel the job is set up for failure. The job cannot be done successfully. And I said to my boss, "If this were a middle-class white high school, they would be all over you if you dared allocate a counselor like this, a college advisor, for half a day." . . . . There is no secretary. . . . How many college advisors have to xerox things? Every step of the way there seemed to be obstacles, and nobody would help. And another thing, everything was a joke, everything was flippant. I couldn't believe it. You don't know that this is true, though. This is my viewpoint. But my predecessor left the school because she couldn't stand it. To leave this school—this is a prize school, and the kids are really nice. So to not want to work in this school—something is wrong. The counselors all leave this school.

He seemed genuinely interested in the students. "These are nice kids," he said. "I wanted to finish my career working with nice kids." He was first a social studies teacher, then began working as a guidance counselor in 1974. He worked as an assistant principal in charge of guidance for four years prior to his transfer to the business magnet. His one-room office at the magnet contained several bookshelves of college publications; a computer workstation; and his desk, tucked in the corner. The office looked like a storage room that had been converted into an office. There was no secretary, but two student interns came in during the interview. When asked what he would change first, the advisor said that he would limit the clerical work. He wanted to have a secretary during the rush season (October through December) at minimum. This counselor indicated that he tended to push students to apply for colleges that would stretch the students' abilities. He tried to get most students into four-year institutions but did counsel some students into two-year colleges, emphasizing that they could move on from there to four-year colleges. He was familiar with the various colleges within the City University system and had definite opinions about which were best. He did not recommend one of the campuses because students there created "a poor intellectual atmosphere."

All of the counselors agreed that the school needed more counselors, but they also suggested other needs. In answer to the question, "If you were a policymaker, what would you do to improve the schools?" one counselor said she would increase the ratio of adults to students. She said that "the schools need more qualified personnel in every area" and pointed out the need for smaller remedial classes. Another counselor responded that the schools should have more paraprofessionals in order to relieve the teachers and guidance counselors of clerical work. This counselor also said that the business magnet should have at least ten counselors instead of the current number, six. Two counselors new to the staff felt that a more flexible, school-based management style would be the most valuable policy change. The call for "more adults" is unlikely to be answered with the present economic crisis, as serious in New York as it is elsewhere. But without more funds, adding counselors means subtracting teachers, which in turn means canceling programs.

Communications High School

Communications High School was a "redesign" school. Once a comprehensive school in a pleasant, integrated neighborhood, the school had gained a reputation for being an undesirable, mostly minority school. Under pressure from the community, the school district closed the school and then reopened with a new principal and staff, five years of bonus funds for rebuilding, and a mandate to become a magnet school. The redesign staff, headed by a new principal and assistant principal, created an effective career magnet high school with students from diverse socioeconomic and racial backgrounds. They said they rejected several different career theme proposals before accepting a proposal for a communications magnet. They faced realistically the community's demands for a school that would include more middle-class and white students and recognized the political wisdom of a communications career specialty, the pet idea of a local politician. Their main objective was to create an effective high school that would blend with the neighborhood, a middle-class neighborhood with a mixture of Italians, Hispanics, and African Americans. Currently, the school has approximately sixty percent African-American and Hispanic students, forty percent white students, and few Asian students.

Career Education

Although the principal did not have a background in communications, she took seriously the challenge of organizing a high school around that occupational specialty. The principal and staff devised a curriculum with five core courses required of all students:

1. media
2. literature
3. oral expression
4. journalism
5. writing

In addition, all freshmen were required to take a year-long course entitled "Introduction to Telecommunications," which included an introduction to word processing, extensive keyboarding practice, and some writing practice. Originally, this course was a way of meeting state requirements for an occupational training course, but it also helped students develop basic skills in computer literacy and writing.

The principal and other school administrators admitted that they were not satisfied with the specific skills training offered by their curriculum. However, they pointed out that even under the current curriculum, the better students had opportunities to develop higher levels of skill in computer applications, computer programming, and electronics. Advanced electronics and telephony were taught through an after-school program called the "PM Institute," affiliated with AT&T. Another long-sought goal was a television studio. In pursuing the studio, the school encountered multiple roadblocks such as difficulty in obtaining Board approval for equipment purchases and insufficient electrical outlets in the room chosen for the studio. Nevertheless, the principal continued to keep the television studio as an important goal for the school. Thus, the high school began with an emphasis on general communications skills along with college preparation then continued developing more intensive training in specific skills associated with the communications industry.

An administrator who worked with the redesign group as the technology expert discussed an interactive video project housed at the school. The project received funding for faculty members to develop courseware and a grant for interactive video installation. This administrator chose to put a special focus on underachievers. He said,

> Here you have a technology or a combination of technologies which is really geared toward a student who needs to be motivated and turned on by something other than a textbook or teacher standing up in front of a room and lecturing.

Effects of Random Assignment

At the communications magnet, all students were told that they were admitted by lottery. This radical policy move, a "white lie" told by the principal and maintained by all school adults, has had a remarkable effect on the school. Faculty and students accepted the lottery. Most interviewees voiced positive opinions about random assignment; only one school adult, a guidance counselor, was opposed to the lottery. The school opened just prior to the beginning of the lottery system, so its first class was limited to school-selected students. According to the principal, this first class of hand-picked students consisted of "spoiled children. They were very noisy." She remarked "how quiet the school is" since the lottery began. The principal said that random assignment created "an effective, decent, fair compromise. Why should I flag randomly assigned students? What would be the value?" The communications magnet did not have a long "golden age" before the lottery as the business magnet did. Along with the principal's policy that all students were to believe that they were selected by lottery, this lack of nostalgia for a "golden age" seemed to be a major factor in fostering the positive attitude of communications students and adults toward the lottery.

Despite the racial mix of students, school adults felt that racism was not a problem at the school. However, interviews with two lottery winners (Jeanne and Maria, presented on pages 36-41) who dropped out indicated that these students felt racial tension at the career magnet. The racially motivated murder of a young African American in a nearby neighborhood touched the school one autumn morning when staff and students found graffiti on the front of the school that said, "Niggers go home or you'll end up like

Clarence." The principal chose to handle the incident quietly, not discussing it as part of her usual "news of the day" over the public address system. Instead, she simply ordered the burial of the graffiti under a coat of white paint. Students reacted strongly to the incident, discussing it in class and among themselves. Some students felt the principal should have talked more openly about the incident.

The lottery winners who stayed at the magnet told us that there was little racial tension among students at the high school. They were quite sure that the graffiti had been written by neighborhood young people and not by students at the school. This belief was shared by a counselor who discussed the incident. All of the students who stayed at the magnet, both lottery winners and school-selected students, said that they had acquaintances of different races, although they also admitted that they spent most of their time at school hanging out with students of their own race. They did not seem to feel any particular racial tension; they simply recognized that close bonds were usually formed among students of similar racial and socioeconomic backgrounds. A counselor echoed this view of race relations among the students:

> I think kids tend to gravitate toward their own ethnic group, and you see that. You see them in the lunchroom and the black kids are with the black kids, . . . and we do have an incident here or there. But I don't think there is an overall tone of racial hostility that exists. I think that is fairly much under control. I think the incidents that do happen are pretty isolated, and I wouldn't say that there is a racial problem generally. I don't think we should pat each other on the back because of it because I think it is a small school and kids get to know each other better. And I found that one of the things that destroys racial stereotypes is that you get to know people, and here kids happen to get to know each other more. They may not pal around with each other, but they do know who each other are, and I think that tends to lessen any hostilities that might have existed initially.

School Effectiveness

The communications magnet is a small high school. According to the principal, the small size is a key element in the school's success, both in terms of student interest and faculty morale. She said that her school was one of the smallest of the career magnet high schools and that the small size allayed the neighborhood high schools' fears that the magnet would "cream" the best students from the area. The task force that authorized redesign thought that the magnet school size should be capped, so a Board of Education resolution was drafted to prevent the magnet school from expanding beyond one thousand students. The same document required another Board resolution to expand the cap.

Faculty Morale

Faculty morale was uniformly high among the adults interviewed. The school adults were enthusiastic about the school's size and about the communications career specialty. Some of the technology teachers had taught themselves to use computers while teaching in another subject area before joining the communications magnet. They were delighted to be working in the area of their special interest. The principal carefully chose the teachers for the new school, retaining only five percent of the teachers from the former faculty and hiring ninety-five percent new teachers. As a result, the magnet faculty enjoyed a positive relationship with the administration, especially with the principal. According to one assistant principal, the principal was very receptive to the needs of the staff. If a group of individuals expressed interest in a particular topic or skill, the principal tried to arrange workshops or meetings to fill that need. For example, the paraprofessionals at the school formed a group to learn to use computers; another example was a support group for the secretaries. Every semester, teachers were sent a list of topics for possible staff development workshops and then selected that semesters' topics. Teachers were encouraged to develop courses around special interests. This resulted in courses such as "I Hear America Singing," an English course that utilized song texts, and "Social Cinema." A counselor voiced his view of the relationship between the faculty and the administration:

> My relationship is good with the administration, and I have not always had that. So for me it's really worked out well. I think you are going to have your share of people here who feel they're always getting the short end of the stick. But I think—for the most part—I think people feel pretty . . . positive about the administration and the way they do things. They do include people in some of the decision-making process. And they do inform people of what's going on. So . . . you know, you're not left in the dark. And there aren't surprises. So I think most people really feel pretty good about the way things are handled here.

Counseling: Sharing the Workload

In addition to building strong faculty morale, the principal's administration implemented innovative strategies for spreading the counseling responsibilities beyond the small counseling staff, which consisted of only four persons. Some of these strategies were suggested by a counselor who worked on the redesign team and were implemented under the direction of this counselor in yet another example of the principal's willingness to use ideas from staff members. The guidance counselors carried standard caseloads of approximately two hundred fifty students each—lower than the business magnet, but still high. They referred students who needed regular one-to-one meetings to the school social worker or school psychologist. Scheduling and academic advising were shared by two "grade advisors"—professionals who met weekly with students and who also taught two classes a day, held weekly meetings with groups of students, and kept office hours the rest of the time. The strategy of hiring "grade advisors" took care of a large share of the paperwork that burdened guidance counselors at other schools such as the business magnet.

In addition, the school implemented a "case management" program, the brainchild of a counselor who described the program in the following way:

> Counselor: The case management program is something that we have set up to try to work individually with small groups of youngsters, utilizing to a certain extent everyone in the school who is willing to volunteer to work with kids. Each person sort of takes under their wing five youngsters and monitors their progress, their attendance, their lateness. They speak to the teacher as to what their deficiencies are in their classes, check up and make sure the kids are doing their homework and things like that. They take responsibility for monitoring those five kids, talking to them and encouraging them, cajoling them—whatever they think is necessary to get the kids to improve in their classes. The whole idea is set up to sort of give the youngsters in school someone that they feel very comfortable with, someone that they know, someone that they can go to right away anytime to talk about something that might be going on in a classroom. And we like to think that it's a pretty good idea.
>
> Interviewer: How did it emerge. . . ? What gave you that idea?
>
> Counselor: Well, I had worked in alternative schools, and I always felt that there are certain kids who go along with certain people in the school, not necessarily the guidance counselor or the person whose job was to be that person. Sometimes kids just like a particular teacher that they felt comfortable with—or even a parent. Some of the kids even felt comfortable with a security guard—whatever. But there was a mood. There was someone that the kids sometimes felt a relationship with. . . . The way it's set up, [staff] select the kids that they are going to work with. In some cases, they know the kids already and they already have a small relationship. And the person will say, "Well, Joe. I know Joey. Yeah, I can talk to him, and I can work things out. I think I can do something for that kid." So the whole idea is that the relationship is already there in many cases so that they can be more effective in helping the kids along, and sometimes changing their attitudes about school.

The counseling department also developed a "conflict resolution" project in which a counselor met regularly with a group of students to develop conflict resolution skills. As a result, the school had a group of students trained to mediate in disputes. The students arrived very early in the morning for meetings which were held before school. The counselor who led the training described his approach:

> I tell the kids who get involved with it, if you learn to do this, you are going to be able to deal with a lot of people on a much better basis because it's a skill—it's a communications skill that is important. And you know, it's something you are going to be able to use with your parents when you want to negotiate with them. . . . We don't have to love everyone. We don't have to be particularly fond of everyone that we deal with, but that does not mean that we can't deal effectively with people, even if we don't agree with them on a lot of things. And that's one of the problems that we have. Youngsters tend to say, "Well, I don't like this teacher, so I'm not going to do any work for that person." And they have to understand that the liking and the disliking of the teachers does not mean that the work . . . should suffer somehow if you don't get along with the teachers. There are still expectations that need to be met.

Thus, the guidance counselors at the communications magnet shared the burden of advising and counseling students with other adults at the school. There were more opportunities for individual attention from adults because of the case management program, the advisory program, and smaller projects such as the conflict resolution project. In general, the climate of this school was more harmonious than that of the business magnet. All students were accepted as a part of the school, and there was more give-and-take between the administration and the faculty than at the business magnet. Of course, the communications magnet was less than half the size of the business magnet, a fact which the principal of the communications magnet credited as a major reason for the school's effectiveness.

Magnet-Within-Comprehensive-School Programs

Interviews were conducted with students and adults at two magnet-within-school programs, the cosmetology magnet and the criminal justice magnet, both located within neighborhood comprehensive high schools. The cosmetology magnet had withdrawn from the educational options program at the time of this study and was no longer admitting students by lottery (discussed below). The criminal justice magnet was still an Educational Option program, but its faculty and administration launched an ambitious effort to recruit bright students for the 1989-1990 school year. Although faculty morale was high in the two magnet-within-school programs, both magnet programs were burdened with special expectations from their hosting comprehensive high school. In both cases, the administration of the hosting comprehensive high school used its magnet program as an opportunity to attract more bright students to the school.

Cosmetology Magnet Program

The cosmetology magnet is housed in a comprehensive high school that is considered below average even for New York City neighborhood comprehensive high schools. Enrollment at this high school decreased from two thousand to thirteen hundred in the year of the study. In former years, the school had a space problem, so an annex which is now reserved for freshmen was built. Because the school had a history of violence, attempts were made to improve school safety. For example, security guards were hired to search students and visitors as they entered the building, but this appeared to be little more than a token measure. The security guards paid far more attention to visitors, and, as a result, students with weapons and some knowledge of the school could slip into the building. The violence had abated, however, according to one assistant principal who explained that most of the heavy drug users and sellers were out on the street, not in school. The student body had very few white faces, having approximately seventy percent African American and thirty percent Hispanic students. Approximately sixty percent of school adults (including faculty, counselors, and staff) were white and Asian, while some forty percent were African American and Hispanic. These demographics suggested possibilities for racial tension between the staff and the students. Yet in our interviews we did not find intense racial tension; instead, we found a stalemate, a communication gap between students and adults that could be traced to the discomfort of class and racial differences.

The Magnet Program and the Host High School

The cosmetology magnet had a long history and reputation as the best aspect of the comprehensive high school. Thus, there was a long-standing rivalry between the cosmetology magnet and the rest of the school. Students applied from all over New York City for admission to the cosmetology magnet, including many students from the most dangerous neighborhoods in New York who wanted to escape the terrors of their neighborhood high school. Often, students admitted for cosmetology had better academic records than students admitted to the regular academic program. Teachers on the cosmetology program faculty had worked in the field of cosmetology and took pride in their teaching. The program demanded one thousand hours of cosmetology classes for students wanting to obtain their licenses upon graduation. This demand did not allow cosmetology students enough time for academic courses, according to the school's college advisor.

As previously mentioned, the cosmetology magnet was no longer a part of the educational options program at the time of this study. It was required to admit fifty percent of its students randomly during the first year (1987-1988) of random assignment, but it and other similar programs were exempted after only one year. The absence of random assignment makes it more difficult to define the relationship of the cosmetology magnet to the rest of the school. The school's problem is common to many urban school systems: Because the "vocational" programs have a theme, recruit from a large area, and are selective, they often have better students enrolling than do the academic programs in the comprehensive schools. School adults were conflicted about the relative importance of the magnet vocational program and college preparation, in what was both a conflict over "Who gets the best students?" and an ideological dispute over what is the best form of education for minority youth. The solution at the other magnets—a compromise that tries to teach both career skills and college preparation—did not work here since the one thousand hour licensing requirement does not leave enough time for a good college preparatory program.

The director of the cosmetology magnet, who had been the director of the cosmetology magnet for three years, was in direct ideological disagreement with the school's college advisor. The director explained that she saw herself as a teacher first and accepted the assignment of director very reluctantly after persistent appeals from the school principal. She told us that she was a graduate of the cosmetology program and had worked extensively in the cosmetology business before, during, and after college. She explained:

> I am disappointed. I came back to teach black youngsters how to do black hair. At the time I was in school, the majority of students were white. The teachers did not know how to train us on our hair. So my purpose in coming back was to train black youngsters to do hair. So I come back, I'm enthusiastic, I'm ready to go, and I find the students aren't interested in cosmetology. A lot of the students in the program are turned down from other places and they don't want to go to their zoned schools, and they can come here from all over New York City to attend this program. I found that

> the hardest thing is to motivate them to buy tools, to do the work in an area that they're not interested in at all. The majority of them will leave here after four years and go on to college or whatever they plan to do. They do not plan to work in the vocation. So that's been the most frustrating thing for me. I would like to have students in my class who like to work at this trade. The majority of the students are not interested. So that's a change I see. I find it frustrating. They all want to be computer experts, or in accounting, or doctors.

The director's ideological opponent was the white college advisor. While the director wanted students to work in the cosmetology business, the college advisor counseled students to aim for college. She explained,

> The cosmetology student, by nature, is not supposed to be a college-bound student. Quite often they are, but every fourteen-year-old can be tempted by the idea of hair and makeup and everything else. So when they recruit them at age fourteen or thirteen from the junior high school, that looks very attractive, that program. So they'll come, and later on they'll get caught up in the number of classes they have to take to remain in that program. They need one thousand hours to be licensed by the state, which means in their junior and senior years they're taking four periods out of an eight-period day. . . . So, again, those are the people who will not have enough solid academic background to get into a four-year college and be able to take advantage of getting in and out in four years.

The college advisor saw the cosmetology program destroying the futures of bright female students, although occasionally she succeeded in counseling a girl out of cosmetology and into the regular academic program. The program director responded by admitting motivated students with poor grades into the cosmetology program. She felt that those students were more likely to work in the cosmetology field than students with better grades and less interest in the vocation. At the end of the 1989-1990 school year, the college advisor had resigned and moved to another school. Thus, a series of decisions (withdrawal from the lottery, the college advisor's resignation) created a trend toward a strictly vocational focus for the cosmetology magnet. Although the cosmetology faculty were all college graduates, they did not want the cosmetology student body to be dominated by students with college ambitions.

Criminal Justice Magnet Program

The criminal justice magnet is housed in a neighborhood comprehensive high school that has a dubious reputation. While not the most violent or drug-infested high school in New York City, it is not known as one of the better comprehensive high schools. The neighborhood is a mixed-race, middle-class area; but most of the affluent whites attend high school outside of the neighborhood, often at private schools. The criminal justice magnet has improved the climate of the whole school by attracting better students and improving faculty morale. Interviews in late 1989 suggested that the school was entering a good period, as the principal had secured a seven-figure grant from the federal government and recruitment efforts were generously supported by the school. However, the principal who secured the federal grant resigned at the conclusion of the 1989-1990 school year, creating a new vulnerability that was not present during interviews for this study.

Reaction to Random Assignment

The administration was not enthusiastic about the lottery and seemed to yearn for the end of the criminal justice magnet's participation in the fifty percent lottery admissions policy. Administrators felt that the school as a whole needed as many bright, affluent students as possible in order to balance the effect of the predominantly at-risk, low-income student population that enrolled in the comprehensive high school. During the year of this study, the high school had begun an effort to attract better students from higher-income families to the school through the criminal justice magnet. They planned an extensive recruiting effort both within the neighborhood (to bring in more affluent students who were attending private schools) and throughout New York City. The program had always been one of the most popular magnets with thirty-eight applicants for every seat the year our study began.

Career Education

Students in the criminal justice magnet had a more rigorous course of study than students in the comprehensive school. A criminal justice student had to complete forty to forty-five credits; in comparison, students in the regular academic program were required to complete thirty-eight credits. Despite the greater demands of their program, criminal justice students said that they liked their studies. Each criminal justice student interviewed had specific plans for a job in the field of criminal justice in addition to plans for higher education. Some students wanted to be litigators, but others had plans for other kinds of legal work, including legal research and police work. Apparently, the criminal justice magnet succeeded in stimulating students to think about a range of jobs in the occupational field of criminal justice.

The criminal justice program required students to take courses in law; forensics; and for some students, in secretarial studies, while also offering five English courses and five social studies courses that were specially designed for criminal justice students. These special English and social studies courses were described by teachers as more demanding than regular English and social studies courses. In a 1982 study, teachers who taught in the criminal justice magnet reported that they demanded more from criminal justice students than from students in the regular academic program (Hunter, 1982). In that study, teachers also said that they enjoyed working with criminal justice students more than with students in the regular academic program.

Faculty Morale

Teacher interviews showed that the morale of teachers in the magnet was high compared to that of other teachers at the same school. The criminal justice teachers were generally more dedicated and enthusiastic than teachers in the regular academic program. Interviews with six teachers in the regular academic program revealed that such teachers appeared to be competent, but less concerned with school improvement. Four of the six were interested only in their subject areas, not in the politics or overall effectiveness of the school. Two veteran teachers seemed battle-weary. One recognized a change in the students: "They're visual learners," she said, "and they have a shorter attention span" compared to students from former years. Another veteran teacher was genuinely interested in the subject he was teaching but frustrated with students' disruptive behavior in class and with violence toward teachers. He had been mugged at another school where he had been employed as a teacher. Both veteran teachers seemed to feel they were trapped in the teaching profession and were avoiding professional risks in order to survive until retirement. Two new teachers who were interviewed did not evince bitterness but spoke almost exclusively of their own classrooms and students. One of the new teachers, a teacher who had been invited to serve on a school committee, saw the committee role as a way to comply with the administration, a way to please the boss.

Exceptions to this pattern of compliance and political passivity were two teachers who were also department chairs. Both teacher-administrators spoke articulately about school politics, and both were critical of the criminal justice magnet. Bob Hale, who had written a case study of the criminal justice magnet, believed that the magnet did not benefit the school or the students as much as the ACORN program, a special program for academically successful students. ACORN students participated in advanced college preparatory courses and enrichment programs, such as field trips. Hale did not think that students benefited from choosing a career focus in high school: such a choice might limit future options, he said. The second critical voice came from Carter Rogers, a math teacher and administrator. Rogers was a teacher and a drug counselor before assuming his current post as the Math Assistant Principal, a position that combined administrative, teaching, and counseling duties. Fascinated by interview questions about educational policy, he voiced a strong negative opinion of magnet schools, emphasizing his belief that magnet schools "creamed" the best students from the neighborhood high schools. Rogers said he would like to see the return of true neighborhood high schools. He wanted the opportunity to teach *all* the young people from the school's neighborhood, including disadvantaged and middle-class young people.

Variations Among Career Magnet Programs

The discussions with school adults provided above suggest that while career magnets may share the common mission of providing students with both career and academic preparation, career magnet programs actually come in many different flavors. The two total magnets presented here, Business Magnet High School and Communications High School, differed from each other in some noteworthy respects: school adults' attitude toward the random assignment admissions policy, their approach to accommodating underprepared lottery winners, school size, and counseling services. The total magnets also differed from the magnet-within-school programs in that (quite obviously) the latter had to deal with a hosting comprehensive high school while the former did not. This situation posed special problems (which the total magnets were spared) for both the cosmetology magnet program and the criminal justice magnet program. In the cosmetology magnet, the conflict between the college advisor and the cosmetology director represented the struggle between career training and academics, a struggle with which the total magnets seem to have effectively come to terms. In the criminal justice magnet, teachers had higher expectations for and enjoyed working more with the magnet students than with the other students in the school. Moreover, faculty morale was higher among the magnet teachers than among the other teachers there. Interestingly, the system-wide problems of having magnets coexisting with nonmagnets (i.e., "creaming" the best students and offering differential quality of education among schools) is manifested not only among schools but also between magnets-within-schools and their hosting comprehensive high schools. All of this indicates that while the first report in this series found that career magnets are in general more effective than traditional comprehensive high schools, there are many different kinds of career magnet programs and certain types may be more effective than others. It will be the task of the next report on these career magnets to determine what characteristics are associated with making programs more or less effective.

The consistent theme throughout this chapter is the struggle of the schools to choose which students to serve. School adults in both magnets and in comprehensive schools feel unequipped to deal with weak or unmotivated students and wish they could spend more time and resources on the students who they perceive as most able to benefit from their teaching. Critics would argue that they are wrong—that the disadvantaged students would benefit at least as much as the more talented. In part, teachers in the career magnets are upset because other academic magnets are not required to take students by lottery. The lottery in New York City has the effect of requiring many (but not all) of its teachers to work with disadvantaged students.

CONCLUSIONS

Robert L. Crain and Amy Heebner

Summary of Findings from the Interview Study

The Impact of Career Magnets

The interviews with students, school administrators, counselors, and teachers in these four schools seem to suggest some of the reasons for the career magnet's strategy being successful in educating inner city youth. In our interviews with students, we observed four key findings:

1. Career magnets foster an optimistic future orientation among students. In contrast to the comprehensive schools (where many students were vague about their futures and unable to present a clear plan for their lives), the students in the career magnets were both more articulate and more optimistic. We discovered a range of planning strategies, from the sophisticated (a highly specific career-track plan with one or more contingency plans) to the rudimentary (a plan to take an entry-level job after high school). The career magnet students described more detailed plans for the future—often with an optimistic tone and an air of thoughtfulness—than most of the comprehensive students we interviewed. The school's calmer environment and its isolation from his middle school peer group even enabled a student like Enrice—who was unable to connect with the career training of his school—to develop a coherent plan for joining the military. In Enrice's case, even a magnet school with the "wrong" career focus succeeded simply because it stressed the need for a career. Enrice probably would not have applied to a magnet if the only choices had been academic schools. The student interviews, taken as a whole, suggest that the environment of career magnets encourages development of career goals and a general awareness of career possibilities. We believe that the career magnets influence student attitudes not only through vocationally oriented classes but also through informal interactions with students and staff.

2. Students at the career magnets develop multiple strategies for mixing future work and education (i.e., parallel career planning). Students seem to have solved for themselves the problem of avoiding the choice between a vocational education and an academic college preparatory education. In many cases, students obtained a

career-related education but refused to give up their grand plans for college education. Instead, they saw the career training that they were receiving as providing them with entry-level skills that could be used to earn money for college or to fall back upon in the event that college did not work out. The students' confidence that there was a possible entry-level position that they could enter after high school increased their sense of economic security enough to allow them to think more clearly about the benefits of going to college. Although the data cannot test the hypothesis, we are left to speculate that the training of students for entry-level positions may increase (rather than decrease) their likelihood of choosing to go to college.

3. Students at the career magnets learn about values and social skills associated with work and benefit from their new school peer groups. One important implication of the student interviews was the beneficial impact upon student values of attending career magnets. Midway through the interview study, the interviewers noticed that the career magnet students, even those from disadvantaged backgrounds, displayed respect for cooperation, commitment, and other work-related values. This tendency was less pronounced (and sometimes entirely absent) in the interviews with disadvantaged students from comprehensive high schools. This difference, while difficult to prove quantitatively, was distinct enough to suggest that the career magnets have a positive impact on the values systems of many students, especially disadvantaged young people. While the impact occurred for a variety of reasons—partly because of the quieter, more orderly environment of the magnet schools, partly as a result of students being separated from middle-school peers whose preadolescent norm structure was more prevalent—students' values *were* influenced by the school's emphasis on making serious career choices. The school provided students with a nonthreatening opportunity to consider and, in some cases, to rehearse possible jobs and careers. The students often responded by trying to learn to think in an adult manner about themselves, their relationships, and their futures.

4. The students in the career magnets have a more positive attitude toward their school. In all of the magnet schools, many students spoke positively of their experience with faculty members and about what they felt they were learning. In nearly every case this was because the students were pleased with the career

training they were receiving. In some cases, they were also pleased with the career-oriented courses, which were not as threatening to them as their academic classes.

Our interviews with faculty also suggests reasons why these schools may be effective:

5. Faculty morale is higher at career magnets than at the studied comprehensive high schools. This may have been because magnet faculty members were aware that they had better students; after all, half the student body was school-selected, and the other half were attending the school by choice. Even in the communications magnet, however, where faculty have been told that all students were randomly assigned, there was a positive attitude toward the students. We think this was because the school had a "focus" which seemed to have created a sense of community and a sense of common goals among the faculty.

6. The success of Communications High School may also have been because it is small. The interviews suggested that faculty members were more comfortable where there were fewer other faculty and students to interact with and where the problems seemed more manageable. Several school administrators argued that limiting enrollment played an important role in their school's success.

The interviews with students and faculty also revealed some serious *problems* in the career magnets:

7. Most low-income and minority students lack "job knowledge"—that is, the information and skills needed to start and to build a productive career. While the career magnets made a serious effort to train students, they may have overestimated the amount that students knew or could learn on their own about the adult world of work and the particular careers they were interested in. In many cases, the students who were most comfortable with their career choices were beneficiaries of having a family member with some work experience in the same area. These students were usually from middle-class families. Many low-income and minority students lacked such family connections. The career magnet seemed to hold promise as a way out of the employment patterns of disadvantaged families, but even these career magnets did not go far enough to help some of the disadvantaged students in our samples.

8. The comprehensive high schools and the magnet schools share a serious deficiency in the amount of career guidance available, especially for at-risk students. We repeatedly came across stories of students who might have benefited from more guidance counseling. In many cases, students felt positively about their counselors, making it seem likely that if the counselor had more time to spend with them, the students would have benefited. The most successful students were those who were interpersonally skilled enough to obtain access to counselors and other faculty. The strategy of one magnet high school, to involve all faculty members in the counseling process, seemed to be highly successful, and we believe that other schools should consider this approach.

9. Total career magnets do not do as good a job of educating students with poor academic records as they do with students of average performance. Remedial services were inadequate for meeting the needs of unprepared students, especially those admitted by random assignment. Generally, this was a matter of limited resources. The career magnets did not receive additional funds for implementing their career programs and, in many cases, had to rob the Peter of remedial services to pay the Paul of career training. In some cases, a weak response to the needs of at-risk students may have reflected the attitudes of faculty and administrators who felt that the school should not have to serve these students. There was a clear disagreement among school administrators about how to deal with students who entered the career magnets with poor academic records. Some thought that the school should not be required to take low-skilled readers who were admitted randomly, while others thought that the school could change to meet the needs of the least well-prepared students. Obviously this is a matter of values as much as a matter of resources or educational theory. It does emphasize, however, the point that a policy which attempts to democratize magnet schools by requiring those schools to take their share of underachieving students is required to provide the resources to educate those students.

REFERENCES

Berman, P., & McLaughlin, M. (1978). *Implementing and sustaining innovations: Vol. VII—Federal programs supporting educational change.* Santa Monica, CA: RAND Corporation.

Berryman, S. E. (forthcoming). Apprenticeship as a paradigm for learning. In J. B. Rosenbaum (Ed.), *Apprenticeship learning: Principles for connecting schools and workplaces.* Washington, DC: Youth and America's Future: The W. T. Grant Foundation Commission on Work, Family, and Citizenship.

Bishop, J. (1991). Docility and apathy: Its cause and cure. In S. Bacharach (Ed.), *Education reform: Social change or political rhetoric* (pp. 234-258). New York, NY: Allyn & Bacon.

Blank, R. K. (1989). *Educational effects of magnet high schools.* Madison, WI: National Center on Effective Secondary Schools.

Blustein, D. L. (1990, April 19). *Explorations of the career exploration literature: Current status and future directions.* Address delivered at the annual meeting of the American Educational Research Association, Boston, MA.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher, 18*(1), 32-41.

Cognition and Technology Group at Vanderbilt. (1990). Anchored instruction and its relationship to situated learning. *Educational Researcher, 19*(6), 2-10.

Crain, R. L., Heebner, A. L., Si, Y. P., Jordan, W. J., & Kiefer, D. R. (1992). *The effectiveness of New York City's career magnet schools: An evaluation of ninth grade performance using an experimental design.* Berkeley: National Center for Research in Vocational Education, University of California at Berkeley.

Dewey, J., & Dewey, E. (1915). *Schools of tomorrow.* New York, NY: E. P. Dutton.

Douvan, E., & Adelson, J. (1966). *The adolescent experience.* New York, NY: John Wiley & Sons.

Hamilton, S. F. (1990). *Apprenticeship for adulthood: Preparing youth for the future.* New York, NY: Free Press.

Higbee, A. (1990, December 17). Teaching of values on the way back. *International Herald-Tribune* (Paris, France), p. 3.

Hill, P. (1990). *High schools with character.* Santa Monica, CA: RAND Corporation.

Hunter, W. J. (1982). *A case study of an alternative school-within-a-school after seven years.* Doctoral dissertation, Yeshiva University, New York, NY.

Ianni, F. A. J. (1989). *The search for structure: A report on American youth today.* New York, NY: Free Press.

Levin, H., & Rumberger, R. (1989, March). *A taxonomy of generic work skills.* Presentation to the annual meeting of the American Educational Research Association, San Francisco, CA.

Lewis, H. (1990). *A question of values.* Washington, DC: Harper Collins Publishers.

Mitchell, V., Russell, E., & Benson, C. (1989). *Exemplary urban career-oriented secondary school programs.* Berkeley: National Center for Research in Vocational Education, University of California at Berkeley.

Moore, D. R., & Davenport, S. (1988). *The new improved sorting machine.* Madison, WI: National Center on Effective Secondary Schools.

New York City Board of Education. (1990). *Cohort report: Four-year results for the class of 1990 and follow-ups of the classes of 1987, 1988, and 1989, and 1989-90 annual dropout rate* (OREA Report). New York: Author.

Resnick, L. B. (1987). Learning in school and out. *Educational Researcher, 16*(9), 13-20.

Sarason, S. (1982). *The culture of the school and the problem of change.* New York, NY: Allyn & Bacon.

Schofield, J. W. (1982). *Black and white in school.* Westport, CT: Praeger.

Scribner, S. (1988). *Head and hand: An action approach to thinking.* New York, NY: Institute for Education and the Economy, Teachers College, Columbia University.

Stasz, C. (1988). *Defining and assessing generic skills for the workplace* (Project 11.3). Washington, DC: RAND Corporation.

Stinchcombe, A. L. (1964). *Rebellion in a high school.* Chicago, IL: Quadrangle Books.

Whitehead, A. N. (1929). *The aims of education.* New York, NY: Macmillan.